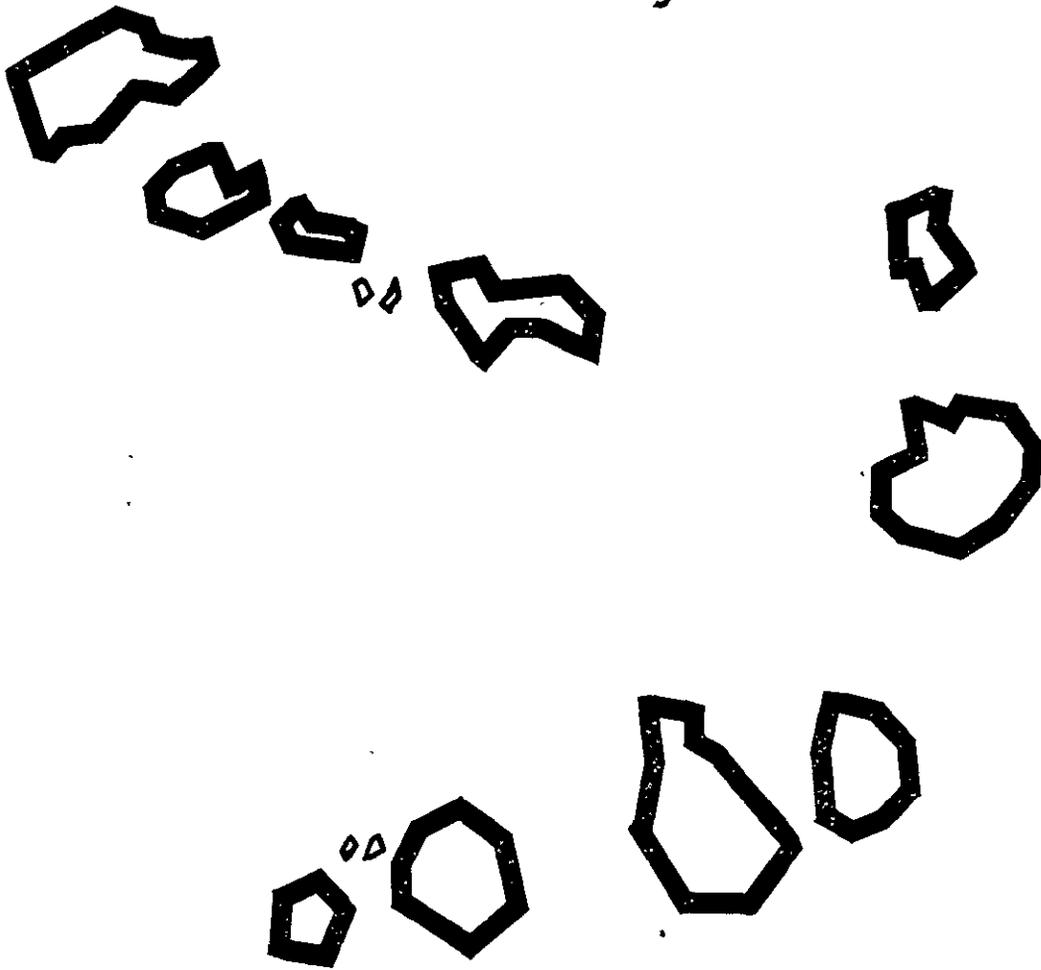


Cape Verde

A Country Profile



February 1979

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

Cape Verde



502706 9-77 (542089)
Lambert Conformal Projection
Standard parallels 8° and 32°
Scale 1:1,700,000

— Road
✈ Airport

CAPE VERDE: 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 Cape Verde 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.

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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.

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Scope Note: Includes Boa Vista, Brava, Fogo, Maio, Sal, Santo Antao, Sao Nicolau, Sao Tiago, and Sao Vicente Islands

Country Names

Official	Republic of Cape Verde
Local	Republica do Cabo Verde
Short	Cape Verde

Official Holidays

National holidays are September 12 (Day of the Nation) and July 5 (Independence Day). The principal Christian holidays are celebrated.

Public holidays 1978:

Labor Day.....	May 1
Children's Day.....	June 1
Independence Day.....	July 5
Day of the Nation.....	September 12
Christmas Day.....	December 25

Public holidays 1979:

New Year's Day.....	January 1
National Heroes' Day.....	January 12
Women's Day.....	March 8

Currency

The Cape Verde escudo (CVE) of 100 centavos is a nonconvertible paper currency linked with the Portuguese escudo.

Coins: 5, 10, 20 and 50 centavos
1, 2, 2 1/2, 5 and 10 Cape Verde escudos

Notes: 20, 50, 100 and 500 Cape Verde escudos
1,000 escudos = 1 conto

Exchange Rate

65 escudos = US \$1 (July 1981)

Host Country Embassy and Staff in US

Address: Embassy of the Republic of Cape Verde
Chancery: Suite 300
1120 Connecticut Ave. N.W.
Washington, D.C. 20036

Tel: 659-3148 and 3149

Staff: Ambassador.....Jose Luis Fernandes Lopes
First Secretary.....Mr. Roque de Pina

US Mission to Cape Verde and Staff

Address: Praia (E) Rua Haji Ya Yenda 81
3rd. floor

Tel: 553

Staff: AMB.....Peter Jon de Vos (resident in Bissau)
CHG.....Edward A. Torre

CON.....Anthony C. Newton
LAB.....Eric Svendsen (resident in Dakar)
ADM.....Robert C. George
AID.....Jim Maher (resident in Bissau)

Treaties and Agreements

With US:

Aviation - Agreement relating to the provisions of site test, commissioning and/or periodic flight checks of air navigation aids by the FAA.

Economic and Technical Cooperation (AID)

With Others

Treaty of Friendship and Cooperation with Portugal

Cooperation Agreement with Angola (December 1976)

Senegal - Cape Verde Joint Commission (July 1976)
(agreements covering communications, transport, fishing, trade, education, health and cultural affairs)

Judiciary Protocol with Guinea-Bissau (April 1976)
(objective of merging legal procedures and personnel as a prelude to unification)

Multilateral

UN and several of its related agencies, OAU, Sahel Committee Against Drought (CILSS), Economic Community of West African States (ECOWAS), ACP/EEC (Lome Convention), Group of 77, non-aligned movement.

Consulates

Cape Verde maintains a Consulate General in Boston, Mass.

Travel and Visa Information

Passport required. Visa not required for stay of up to 48 hours.

Health

Smallpox vaccination certificate required of travelers three months of age and over, only from those who within the preceding 14 days have been in Ethiopia.

Cholera certificate required of travelers from infected areas.

Yellow fever vaccination certificate required from travelers one year of age and over except that no certificate is required of those arriving in Boa Vista, Maio, Sal, Santiago, and Sao Vicente.

Typhus, typhoid, hepatitis, and tetanus immunizations are recommended.

Time

11 A.M. = noon GMT
EST + 4

Ethnic and Sociocultural Groups

The majority (60-70%) of Cape Verdeans are of mixed Portuguese and African descent. Early settlers (Portuguese, Sephardic Jews,

Italians, Spaniards and later immigrants from the island of Madeira) brought slaves from the Os Rios do Cabo Verde - the region of Africa now known as Guinea-Bissau and Senegal - to the islands to work on their plantations. The considerable miscegenation and the influence of Catholicism and Western civilization brought about a gradual weakening of African cultural elements and the loss of cohesion among the slaves as a cultural group. Vestiges of African culture are today most pronounced on the island of Sao Tiago which has been inhabited since earliest times by a population of free Africans. The 28% of Cape Verde's population which is African is found mainly on Sao Tiago. There is a small minority (1-2%) of Europeans in the islands.

The high rate of miscegenation and the general absence of tribal social structures have resulted in a social situation characterized by democratization and integration. Cape Verde is described as multi-racial in terms of color but non-racist in social attitudes.

Whatever social groupings exist tend to be along economic lines. A small upper class (1-2%) consists of landowners, professional people and civil servants, while a middle class, nearly as small (3-4%), is made up of retailers, small landowners and minor civil servants. Rural people, renters and wage earners comprise the bulk of the population.

A tradition of informal polygamy and large families and a high rate of male emigration have created a situation in which women are often heads of households in Cape Verde.

Languages

Portuguese is the official language of the RCV, but the people generally speak Crioulo - an archaic Portuguese dialect influenced and modified by West African languages. The Creole dialect varies from island to island with that of Sao Nicolau being closest to pure Portuguese. Greatest African influence is in phonetic patterns; most words have their origins in the Portuguese language. There exists a rich oral tradition of literature and music (mornas) in Cape Verde Creole which has produced a highly verbal culture. Most Cape Verdeans are bilingual but prefer to use Creole in the home and in contexts requiring emotional expression. Most government officials also speak French.

Education

Although as assimilados (a people thought to have assimilated Portuguese culture), Cape Verdeans had somewhat easier access to an education than did the populations of other Portuguese colonies, there remains, nevertheless, an illiteracy rate of about 70% in the islands. Before independence, the educational system was patterned on that of Portugal with European-oriented content. Under the PAIGC, it follows the system being carried out in Guinea-Bissau, which stresses universal literacy, the acquisition of primary skills and an advanced education aimed at providing agricultural and technical skills to promote production. In line with these goals, there is compulsory school attendance for children 7 to 12 years of age in the Instrucao Primaria and for those 12 to 14 years in the Escola Preparatoria. Two liceus provide a three year general course or a two year pre-university course for children 14 years of age and over. In addition, there is one industrial and commercial school and three teacher training schools. An adult education program designed to provide basic skills is in preparatory stages. A lack of finances and personnel impedes educational progress at present.

Religion

The majority (about 65%) of Cape Verdeans are Roman Catholics. A few Protestant sects, notably Nazarene and Seventh Day Adventists, also have a following. Several traditional African religions are practiced, especially on the island of Sao Tiago where a majority of the inhabitants are of pure African stock; a type of religious association known as tabancas is found there. A king, queen and attendants head these mutual assistance groups, which provide help in home construction and in times of illness and death. Festivities associated with the tabancas are more in the nature of entertainment than religious observances.

National Structure

The Republic of Cape Verde achieved independence on July 5, 1975, after more than 500 years of Portuguese rule. A few days prior to that, a 56-member National People's Assembly was chosen by universal suffrage of persons 18 years of age and over from a list of candidates submitted by the single official party, the African Party for the Independence of Guinea and Cape Verde (PAIGC). Upon independence, the single house legislature elected the executive branch of the government (Aristedes Pereira, the secretary-general of the PAIGC, as president and Maj. Pedro Pires, negotiator for the independence agreements of both Guinea-Bissau and Cape Verde, as prime minister and head of the government).

The drafting of a formal constitution has been deferred until the issue of unification with Guinea-Bissau is settled. Until the constitution is drawn up, the Law Establishing the Political Organization of the State, promulgated in July, 1975, and affirming the supremacy of the PAIGC over the state structures, will remain in effect.

Prior to independence, the Cape Verde Islands were subject to the Portuguese civil and criminal code. The present judicial system is headed by a National Council of Justice composed of three judges appointed by the government and six assessors designated by the legislature who hear appeals from elected courts of first instance. A judiciary protocol signed by Cape Verde and Guinea-Bissau in April, 1976, unites the two countries as a territory for the purposes of laws, legal personnel, prisons and punishment for crimes.

Geographic Divisions

As they were under Portugal, the Cape Verde Islands are divided for administrative purposes into *conselhos* (districts), which are further subdivided into *freguesias* (parishes). A new local government structure was established in early 1976 with the appointment of a network of local deliberative councils, headed by delegates of the Ministry of Internal Administration. Both delegates and councils are named by the prime minister. In each *freguesia* an administrative agent maintains contact between the communities of the *freguesia* and the delegate.

List

The 14 administrative divisions are: Boa Vista, Brava, Fogo, Maio, Paul, Porto Novo, Praia, Ribeira Grande, Sal, Santa Caterina, Santa Cruz, Sao Nicolau, Sao Vicente, Tarrafal.

Territorial Divison of Cape Verde^a

<u>Islands</u>	<u>Concelhos</u>	<u>Freguesias</u>
Boa Vista	Boa Vista	Santa Isabel Sao Joao Baptista
Brava	Brava	Sao Joao Baptista Nossa Senhora do Monte
Fogo	Fogo	Nossa Senhora da Conceicao Nossa Senhora da Ajuda Sao Lournego Santa Catarina
Maio	Maio	Nossa Senhora da Luz
Sal	Sal	Nossa Senhora das Dores
Santiago	Praia	Nossa Senhora da Graca Nossa Senhora da Luz Santissimo Nome de Jesus Sao Nicolau Tolentino Sao Joa Baptista
		Santa Catarina Sao Salvador do Mundo
		Santa Cruz Sao Lourenco dos Orgaos Sao Tiago Maior
		Tarrafal Santo Amaro Abade Sao Miguel Arcanjo
Santo Antao	Paul	Santo Antonio das Pombas
	Porto Novo	Santo Andre Sao Joao Baptista

Santo Antao (cont'd)	Ribeira Grande	Nossa Senhora do Livramento Nossa Senhora do Rosario Santo Crucifixo Sao Pedro Apostolo
Sao Nicolau	Sao Nicolau	Nossa Senhora do Rosario Nossa Senhora da Lapa
Sao Vicente	Sao Vicente	Nossa Senhora da Luz

^aData from Cape Verde, Ministerio de Saude e Assuntos Sociais, 1976, Estrategia Nacional de Saude, Praia.

(Source: General Research Corp., Report: Cape Verde, Assessment of
of the Agricultural Sector, AID)

Key Leaders (June 1981)

President.....Pereira, Aristides
 Prime Minister.....Pires, Pedro
 Minister of Economy and Finance.....Silva, Osvaldo Lopes da
 Minister of Education and Culture.....Araujo, Jose Eduardo de
 Figueiredo
 Minister of Finance.....Silva, Osvaldo Lopes da
 Minister of Foreign Affairs.....Luz, Silvino Manuel da,
 Col.
 Minister of Health and Social Affairs.....Gomes, Ireneu, Dr.
 Minister of Housing and Public Works.....Ramos, Tito Livio Santos
 de Oliverira
 Minister of Interior.....Carvalho, Julio de, Col.
 Minister of Justice.....Almada, David Hopffer
 Cordeiro de
 Minister of Natl. Defense.....Chantre, Honorio, Col.
 Minister of Rural Development.....Silva, Joao Pereira
 Minister of Transports and Communications.....Vieira, Herculano

Political Party

The country's single legal party, the African Party for the Independence of Guinea-Bissau and Cape Verde (PAIGC), originally formed in 1956 for the purpose of resisting Portuguese rule in the two dependencies, is committed to the eventual unification of Cape Verde and Guinea-Bissau. Leader of the guerrilla struggle on the mainland which led to negotiations for independence for Guinea-Bissau, the party was repressed in the islands until after the Lisbon coup in April 1974. Massive pro-PAIGC demonstrations in Cape Verde then forced Portugal to agree to its independence the following year. Leaders of opposition parties fled the country or were later deported.

With its rule now apparently firmly entrenched in both countries, the PAIGC is taking a gradualist approach toward its goal of eventual union. In the meantime, a party congress composed of representatives from both countries meets every three years. The Supreme Council for the Struggle, a bi-national leadership body with 85 members, meets once a year when convoked by the Executive Committee for the Struggle. The Executive Committee with 24 members is the PAIGC's political bureau and acts for the Supreme Council.

On the national level, the party is headed by the Cape Verde National Committee (CN), and there is a complex party structure with numerous divisions and sub-divisions. Membership in the party is controlled (limited to about 1,800 at present), but there is a much larger number of active supporters in "party committees" and sympathizers' groups. In addition, such tightly-controlled "mass organizations" as the Amilcar Cabral African Youth (JAAC), Women's Organizing Committee (COM), and Organizing Committee of Cape Verdean Trade Unions (COSC) reinforce the party's strength.

Host Plan

There is no national plan. Coordination with the GOCV is through the Prime Minister's Office, Director of International Co-operation.

GOCV

A public works program to alleviate rural unemployment and associated suffering due to the drought has been the main thrust of the emergency budget, all of which is from international transfers. Most such transfers are in kind, principally food staples. Much of the food is sold, and the proceeds are used to employ rural people, with the distribution of jobs tightly controlled.

Food

During the recent years of drought, food needs have been met mainly by imports and donor contributions. Even if abundant rainfall should occur in 1979 and 1980, food assistance would have to be continued during a period of transition.

Transport

The archipelagic nature of Cape Verde may create special problems in transporting goods and personnel, possibly making island-specific assistance programs preferable. This is especially true of long-range development projects. (See also Logistics).

Disaster Type

Most common -- drought.

Less likely disaster types: volcanic eruption (Fogo), earthquake (see Volcano), floods, flash fires

History

The principal type of disaster is recurrent severe drought and accompanying famine. There have been 50 droughts recorded in the Cape Verde Islands in the past 200 years with a record of deaths as follows:

1774 - 1775	.....22,000	dead
1831 - 1833	.....12,000	dead (about 35% of population)
1863 - 1865	.....30,000	dead (about 40% of population)
1902 - 1904	.....15,000	dead (about 25% of population)
1920 - 1922	.....17,000	dead (about 20% of population)
1940 - 1941	.....30,000	dead (about 15% of population)

Widespread suffering has been avoided in the present drought by large infusions of international aid and by the emigration of thousands of Cape Verdeans.

Volags, US

<u>Agency</u>	<u>Personnel</u> <u>No. Int/Local</u>	<u>Programs</u>
The African American Institute	NA	Ed
The American Committee for Cape Verde, Inc. (TCHUBA)	25 US	Coops and Loans, Ed, Equip and Mat A'id, Food Prod and Agr
Catholic Relief Service	NA	CD, Equip & Mat Aid
Salesians	5/	Ed, SW
Church World Service	NA	Equip & Mat Aid

United Methodist Committee on
Relief

NA

Equip & Mat Aid

Key:

CD.....Community Development
Coops & Loans.....Cooperatives, Credit Unions and Loans
Ed.....Education
Equip & Mat Aid.....Equipment and Material Aid
Food Prod & Agr.....Food Production and Agriculture
Sw.....Social Welfare

Population

An enumerated population of 272,072 was arrived at by the census of December 15, 1970. In 1972, there were 33 births and 10 deaths per 1,000 population and an annual growth rate of 2.3%. Infant deaths per 1,000 live births that year numbered 91. Recent estimates of population size in the RCV range from 300,000 to 330,000, the number having doubled since the drought of 1946 and 1947.

The population of Cape Verde has grown rapidly through the years, and the islands' meager resources have not been sufficient to take care of the country's needs even when rains were good. Periods of drought have tragically brought famine and death to thousands of islanders. While famine has been averted in the present prolonged drought, the population picture has been affected as thousands have been forced to emigrate. It is estimated that another 300,000 Cape Verdeans now live abroad in the United States (mainly New England), Portugal, Senegal, Angola and Guinea-Bissau. Some few thousand (10,000 or more) have returned to the islands in recent years because of a lack of job opportunities in Western countries or to escape the fighting in Angola.

Recent estimates of population growth rate (between 1.5% and 1.95% according to Cape Verde sources) show a slight decline since the onset of drought in 1968. This may be explained by the fact that a smaller percentage of women are of childbearing age and by the high rates of emigration, possibly of people in their most productive years.

* The World Population Data Sheet, which estimates the 1978 population of the RCV at 300,000, gives the following additional statistics:

Birth rate	28
Death rate	9
Annual % increase	1.8
Number of years to double population	38
Population projection to 2,000 (millions)	0.4
Infant mortality rate	105
Population under 15 years (%)	48
Population over 64 years (%)	5
Life expectancy at birth	50
Urban population (%)	8

* Population Reference Bureau, Inc.

Concentration

For the islands as a whole, the population density per square kilometer in 1976 was estimated to be between 75 and 76.9. The largest population concentrations are on Sao Vicente (194/sq km) with the greatest density in the port city of Mindelo, and on Sao Tiago, the location of the capital city of Praia, with 50% of Cape Verde's population and an estimated 145.3 persons per sq km in 1977. Population density is also high on Brava, while Boa Vista has fewer than 7 persons per sq km.

Approximately 70% of the RCV's population lives in rural areas. A large majority of the population is rural on the islands of Sao Nicolau (90%), Santo Antao, Fogo, Boa Vista, Brava and Sao Tiago, in contrast with the high percentages of urban dwellers on Sal (90%) and Sao Vicente (80%). The four islands of Sao Tiago, Fogo, Santo Antao and Sao Nicolau account for about 90% of the rural population. For agricultural land only, population density is 500/sq km. The range is from 200 persons on Fogo to 1,000 persons on Brava.

The rural-urban population distribution depends in part on rainfall. Agriculturalists migrate to urban areas in periods of drought, returning to rural areas to work their farm plots in years of good rainfall.

By Administrative Divisions

	<u>1976</u> <u>(estimates)</u>
Boa Vista	4,031
Brava	8,881
Fogo	32,956
Maio	3,970
Paul	8,530
Porto Novo	14,258
Praia	47,627
Ribeira Grande	25,692
Sal	6,815
Santa Caterina	45,109
Santa Cruz	23,594
Sao Nicolau	18,164
Sao Vicente	37,634
Tarrafal	28,785

(Source: Europa Yearbook, 1978)

Total, Urban, and Rural Population of Cape Verde by Island, 1977

Island	Total Population ^a		Urban Population ^b	DGE Estimate (Column 1)		DGAI Estimate (Column 2)			
	DGE*	DGAI**		Popu- lation	Share of		Popu- lation	Share of	
	(1)	(2)			(3)	Total		(%)	(6)	Total	(%)
Boa Vista	4,133	4,000	809	3,324	80.4	3,191	79.8		
Brava	9,064	6,606	1,657	7,407	81.7	4,949	74.9		
Fogo	33,526	29,692	5,000	28,526	85.1	24,692	83.2		
Maio	4,063	4,022	1,292	2,771	68.2	2,730	67.9		
Sal	7,034	6,790	6,150	884	12.6	640	9.4		
Santiago	147,848	144,000	31,383	116,465	78.8	112,617	78.2		
Santo									
Antao	49,076	47,473	7,600	41,476	84.5	39,873	84.0		
Sao									
Nicolau	18,491	15,237	2,000	16,491	89.2	13,237	86.9		
Sao									
Vicente	38,741	44,059	32,000	6,741	17.4	12,059	27.4		
Total	312,026	301,879	87,891	224,135	71.8	213,988	70.9		

^aData for columns 1 and 2 are the estimates of total population made by DGE and DGAI as presented in Table V. 14, columns 6 and 7 and explained in footnote "a" of that table.

^bUrban population is defined as cities or villages that have significant nonagricultural economic activity. However, part of the population of every urban center is engaged in subsistence agriculture, especially in the villages. Furthermore, the number of agriculturalists living in cities and villages has increased in recent years, due to the drought. Agriculturalists tend to go back to the countryside during years of good rainfall.

* DGE - Directorate General of Statistics

**DGAI - Directorate General of Internal Administration

Diseases

Poverty, poor sanitation and malnutrition contribute to a wide range of health problems. Pellagra and anemia are common; marasmus and kwashiorkor have been observed in Fogo, Sao Tiago and Santo Antao. A general lack of sewage disposal facilities and of an adequate, healthful water supply results in a high incidence of enteric diseases, which, although rates are declining, have been a leading cause of mortality, especially in children. Respiratory infections--pulmonary tuberculosis, pneumonia, and bronchitis-- are common; and, in 1975, tetanus, salmonellosis, and polio were still major illnesses. Nervous conditions of depression and anxiety, sometimes related to severe malnutrition, have also been noted.

Rates of Infant mortality, which have remained around 100 per 1,000 births for about two decades, provide a good index of general health, reflecting malnutrition, poor hygiene and a lack of knowledge of causes of disease. The leading causes of Infant mortality are: gastroenteritis (40%); childhood diseases (22%); respiratory tract infections (10%); umbilical tetanus (6%); newborn diseases (6.5%); other (15.5%).

Several diseases have greater prevalence on particular islands. A 1975 health report on Cape Verde indicated that there had been scattered outbreaks of cholera in the preceding year on the islands of Sal, Sao Vicente, Santo Antao and Brava.

Leprosy is most often seen on the islands of Fogo (18 cases per 1,000 population) and in Santo Antao (7.04 per 1,000); Brava, Sao Tiago and Sao Vicente have an incidence of about 2 per 1,000. Isolation of lepers and lack of medical attention are blamed for the persistence of the disease.

Malaria, considered to have been eradicated in the 1960's through an intensive program of mosquito control, has reappeared in recent years. Possibly introduced by returning emigrants from mainland Africa, the disease is generally confined to Sao Tiago, where an area in the central region of the island has been found to be an important locus. As many as 50 cases a week have originated there in 1978.

Various helminth infections are frequently encountered, with hookworm being especially prevalent in Sao Nicolau, Sao Tiago and Brava. On the latter island, 50% of the population is thought to be infected. Intestinal parasites and scabies are widespread.

A significant number of deaths result from serious burns and accidents. The former are frequently caused by the ignition of the low straw roofs in kitchens and the latter by falls on the rocky terrain. Trauma from falls is most common in Santo Antao.

Portuguese authorities carried out a vaccination program against yellow fever, smallpox and tuberculosis in the 1960's. More recent campaigns against tuberculosis and polio have been made possible by vaccines donated by international agencies. More persons in recent years are dying of old age in Cape Verde rather than from disease, with an overall decline in mortality rates. If the current effort by international agencies and foreign governments continues for an extended period, the health picture in the islands could be greatly improved.

Vital Statistics

Births/thousand population	28
Deaths/thousand population	9
Infant mortality/thousand live births	105
Life expectancy at birth	50

(See also Population)

Facilities

Medical facilities and personnel are concentrated in Mindelo (Sao Vicente) and Praia (Sao Tiago) where the two largest hospitals are located. Major surgery is available at these two locations, while minor surgical procedures can be carried out in Santo Antao and Fogo, locations along with Sao Nicolau of small hospitals. A total of 34 postos sanitarios (health dispensaries) are located throughout the islands. Equipment, medicines and vaccines have been donated by several countries and international agencies, significantly improving the quality of medical care available in the RCV. For the archipelago as a whole the number of hospital beds per population is 1:689. A move toward an emphasis on preventive medicine is evident from the recent development of government sponsored community health courses. The structure of health services is directed by the Ministry of Health.

Storage of Medical Supplies

Drugs are imported through Direc-tora Geral de Farmacia, Caixa Postal 112, Praia. Cabo Verde; Tel 437; Telex 102 BAMCV. A list of drugs in common use is available there. Private pharmacies exist in cities. There is cold storage facility in the capital for 1,700 liters, with only limited capacity at the periphery. Dry ice is not available. Cold chain is available at the Ministry of Health (Direc-tora Geral de Farmacia).

Traditional Medicine

Folk cures, including bleeding, special diets and herbal remedies, are still used in the islands. The practice of applying an ointment consisting of soil, horse manure and tobacco to the umbilical cord stumps of newborns to ward off evil results frequently in umbilical tetanus.

Medical Facilities in Cape Verde^a

<u>Location</u>	<u>Hospitals</u>	<u>Beds</u>	<u>Postos Sanitarios</u>	<u>MDs^b</u>	<u>Nurses</u>
Santo Antao	1	57	8	3	12
Sao Nicolau	1	13	2	1	4
Sao Vicente	2	156	3	18	33
Sal	1	7	2	1	4
Fogo	1	81	5	3	8
Boa Vista	-	2	2	-	2
Brava	-	6	3	1	4
Santiago	-	314	8	21	60
Maio	-	4	1	-	2
Total	7	640	34	48	129

^aSource: Ministerio de Saude e Assuntos Sociais, 1978, as cited in General Research Corp., Report: Cape Verde, Assessment of the Agricultural Sector, AID.

^bTwenty-six of the physicians are foreign; 22 are Cape Verdean.

Personnel

Until very recently, a severe shortage of physicians existed in the RCV with a ratio of 1 doctor to a possible 19,000 persons. While there is still a serious lack, the situation has significantly improved in the past two or three years as doctors and other medical workers from other countries have augmented local health personnel. The RCV now compares favorably with other developing nations with an average of one physician per 7,000 persons.

The majority of physicians are associated with the hospitals in Praia (21) and Mindelo (18) and most do not travel. With the largest hospitals and greatest number of doctors in Sao Tiago (Praia) and Sao Vicente (Mindelo), the populations of these two islands have fairly easy access to medical care. There are three physicians in each of the islands of Fogo and Santo Antao and only one in Sao Nicolau. Medical services are often inaccessible in both Santo Antao and Sao Nicolau because of the scarcity of doctors (1/15,824 inhabitants in the former and 1/15,237 inhabitants in the latter) and because the mountainous terrain makes it difficult for doctors to reach the population. Fogo has one physician per 9,887 persons while most of the islands are in the range 1:4,000 to 1:6,000.

Medical Personnel In Cape Verde^a

	<u>MDs</u> ^b	<u>RX</u>	<u>RN</u>	<u>RN</u> <u>Helpers</u>	<u>RA</u>	<u>RXA</u>	<u>AN</u>	<u>LT</u>	<u>Other</u>
Santiago	19	4	39	29	1	6	1	2	1
Sao Vicente	18	4	17	15	-	3	-	2	2
Santa Antao	3	-	6	7	-	-	-	-	-
Sao Nicolau	1	-	3	-	-	-	-	-	-
Sal	1	-	2	1	-	-	-	-	-
Boa Vista	-	-	1	1	-	-	-	-	-
Fogo	2	-	-	4	-	1	-	-	-
Brava	1	-	2	3	-	-	-	-	-
Maio	1	-	1	1	-	-	-	-	-
Total	46	8	75	61	1	10	1	4	3

^aData from Ministerio de Saude e Assuntos Sociais, 1978, Relatorio de 1977, Praia.

^bIncludes Bolivian, Cuban, Soviet, and Belgian physicians.

RX.....Pharmacists

RXA.....Pharmacist Assistants

RN.....Nurses

AN.....Anesthesiologists

RA.....Radiologists

LT.....Lab Technical

(Source: General Reference Corp., Report: Cape Verde, Assessment of the Agricultural Sector, AID)

Comparative Analysis Of Rural Well-Being On The
Most Populous Agricultural Islands

	<u>Santiago</u>	<u>Santo Antao</u>	<u>Fogo</u>	<u>Nicolau</u>	<u>Brava</u>
Total population 1977	144,000	47,473	29,692	15,237	6,606
<u>Health</u>					
Number of doctors	21	3	3	1	1
Persons per doctor	6,857	15,874	9,897	15,237	6,606
Persons per hospital bed	459	833	366	1,172	1,101
Available surgery	Major	Minor	Minor	None	None
Principal medical problems ^a	Malaria Hookworm	Leprosy Trauma	Leprosy	Hookworm	Hookworm
<u>Agriculture</u>					
Persons per agricul- tural hectare	4.5	4.7	2.1	9.3	11.6
Persons per irri- gated hectare ^b	151	59	4,948	525	270
Goats per family	1.2	0.2	3.3	1.5	15.0
Goats per square kilometer	21	2	38	11	275
Pigs per family ^b	1.3	1.1	1.4	1.0	1.0
<u>Employment in Public Works</u>					
Number employed	17,398	7,598	3,740	1,445	1,500
Percent of island's population	27	34	26	19	47
<u>Demography</u>					
Persons per square kilometer	145	61	62	39	98
Annual growth rate (%)	1.53	0.75	0.0	-0.98	-2.45

^a Intestinal parasitism is a primary disease common to all islands.

^b Based on 1971 island-by-island census reported by Crespo (1971). Total populations of goats have declined by 13% and of pigs by 46%.

(Source: General Research Corp., Cape Verde, Assessment of the Agricultural Sector, AID).

MDR/RDA

Calories: 2,402

Protein	Fat	Carbohydr	Calc	Phos	Iron	Sodium	Pot	Vit-A
65g	120.1g	270.2g	800mg	800mg	12mg	---	---	5,000iu

Food and Drink

The following foodstuffs grown in Cape Verde for domestic consumption or for export or imported for use in the islands are presumably occasionally available to some sectors of the population. However, food habits and low income restrict variety and quantities of food for the majority.

Starches: maize (corn), a dietary staple, rice, cassava, sweet potatoes, potatoes, wheat flour (imported)

Vegetables: carrots, tomatoes, couve, cauliflower, herbs, onions, garlic, cabbage, peppers, squash

Fruits: bananas (grown principally for export), mangoes, papayas, melons, avocados

Meat: cattle, goats, sheep, pigs and poultry are raised; pigs and goats are principal sources of meat

Fat: pork fat, lard, vegetable oil

Dairy products: goats' milk and cheese

Legumes: several types of beans (a dietary staple), peanuts

Fish: abundantly available in waters off Cape Verde, but average consumption is only 12 kilograms per person per year; used fresh, salted and sundried

Beverages: milk, coffee (grown principally for export), a locally made alcoholic beverage, imported wine

Food Habits

A corn-based dish, cachupa, is the dietary mainstay of most rural Cape Verdeans. The ingredients added to it depend on the economic well-being of the household. "Cachupa of the poor" consists of corn, water, salt and a little lard or oil. Beans are sometimes added to improve flavor and nutritional value, as is fish by populations living close to the coast. Meat and meat bones may be added in better-off households.

"Rich man's cachupa", eaten by persons in the cities who receive a regular salary, contains, in addition to the above mentioned ingredients, manioc, pork, bananas and a proportion of beans equal to that of corn.

Corn is included in the diet in many other forms: as xerem (whole grain corn cooked as if it were rice); as rolao (usually eaten at midday with milk or mixed with sweet potatoes, manioc or squash); as farinha (flour to make gruels and cuzcuz); and as camoca (toasted corn).*

Nutrition

There is no famine accompanying the present drought, because of food donations calculated to meet nutritional needs. Yet nutritional deficiencies persist, especially in protein, Vitamins B complex, A and C. PEM is a major problem in children and lactating women; anemia is common in pregnant women.

The low-wages paid in public works projects seem insufficient to cover the cost of an adequate diet. Cachupa of the poor - that most frequently consumed, two or possibly three times a day - provides an average of only 2,170 calories per person per day and only 62.9 grams of protein, chiefly of vegetable origin and therefore lacking some amino acids. The high maize diet leads to a Vitamin B2 deficiency and finally to pellagra. Poor man's cachupa does not provide necessary nutrients for pregnant and lactating women or sufficient calories for men in heavy dam and road construction jobs who need an additional 1,000 calories daily.

* General Research Corp., Cape Verde, Assessment of the Agricultural Sector, AID, pp. 147-148

Nutritional deficiencies are particularly significant in some areas of the islands. At the higher altitudes on Fogo, for example, endemic cases of goiter and calorie, protein, iron and Vitamin A and B complex deficiencies have been noted.

Cooking Utensils

Cachupa is boiled over an open fire for three or four hours or more, requiring much use of fuel wood which is in short supply. The RCV could potentially provide for much of its needs in domestic firewood at present rates of consumption; proposed shifts to kerosene or bottled gas might make fuel too expensive for rural population.

Housing

Housing on Cape Verde varies according to economic status of the family and is a good indicator of it. The people often make improvements on their homes when increase in income permits. Europeans and upper class Cape Verdéans may live in elegant Mediterranean style homes, but the poor majority live in small structures (1 or 2 rooms) with timber supports and stone walls (45 to 60 cm thick). Roofs are usually of thatch (of sugarcane bagasse or palm fronds), but some are made of tiles. A separate cookhouse is a usual feature, with a tin roof often substituted for thatch to prevent fire. Furnishings are minimal - a table, bench and straw mats which serve as beds being most common. Houses are not usually close together in rural areas since steep terrain prevents grouping. The location of a house is planned to avoid flood waters and falling rocks. City dwellers live in houses of stone and cement.

Economic

Subsistence agriculture is the traditional basis of the RCV's economy, but ten years of drought have so reduced production that 90% of food requirements must now be imported. Within a ten year period of time, imports increased from 3.5 times as great as exports to almost 25 times as great. It is possible for imports to exceed exports on the present scale only because of international aid and remittances from Cape Verdean emigrant workers abroad (estimated at \$8 million annually). Therefore, despite a consistent deficit, the balance of payments has been positive every year, with the exception of 1969, because of public and private transfers and net inflows of capital.

With about 80% of the labor force, mainly in the agricultural sector, unemployed by 1975, a massive public works program in rural areas was initiated, financed by the donations of basic foodstuffs from the international community. Approximately 40% of the economically active population in rural areas is now employed in the program, leaving another possible 25-30% still unemployed.

Although the prolonged drought accounts for much of the present economic hardship, government leaders also blame centuries of neglect under colonial rule when nothing was done to reduce the risks of drought. The PAIGC plans, with foreign assistance, to develop a "no rain" economy in which the agricultural sector would be revitalized through a program of exploitation of underground water reserves, construction of water and soil structures, reforestation, and land reform. At the same time, government leaders expect the economy will move away from the too heavy reliance on agriculture which has paralyzed it in times of drought as the islands' other resources are exploited to a greater extent.

Chief among these resources is a fishing industry which is presently small (about 2,600 fishermen; total catch, 3,900 tons in 1975) but with growth potential. The cold Atlantic current off the islands provides an ideal environment for many kinds of fish, including tuna in deep sea waters and mackerel and spiny lobster in coastal waters. A lack of sufficient infrastructure for processing and canning and the small size of local boats, which are unable to reach deep-sea fishing grounds, account for the present small scale of the industry.

Although the islands have little industry (limited presently to cooling facilities and a processing plant for fish in Mindelo, tuna canneries in Praia and Sal, and a few other small plants) and few

other natural resources, development plans include a project, under a UN aid plan, to expand the production of salt (especially plentiful on Sal, Maio, and Boa Vista) from the present 36,000 tons a year to 500,000 tons and, related to that, the possible establishment of plants for manufacturing fertilizer, iodine, magnesium, caustic soda and chlorine. The building of a cement factory on the island of Maio is also being considered and is related to a plan to exploit Cape Verde's large reserves of volcanic trass (pozzolana) which, when combined with cement, produces a waterproof material used in dam and maritime construction.

The strategic location of the RCV at the crossroads of Central Atlantic air and sea lanes has made the port of Mindelo an important refueling station for ships enroute to Latin America and the airport on Sal, an important calling place for transatlantic aircraft.

Both location and climate (when there is rainfall) favor the expansion of tourism. A tourist complex is planned for Boa Vista with the use of Belgian capital, and a German company has expressed interest in developing tourist facilities on Sao Tiago.

Aid

Cape Verde has received assistance from many countries and international agencies in the form of foodstuffs, medical supplies and development aid.

Donors include:

Foodstuffs: USA, Canada, EEC, France, W. Germany, UK, People's Republic of China, Belgium

Health: WHO, UN Refugee Commission, UNICEF, and several voluntary agencies

Agriculture and development: UNDP - soil and water conservation works, reforestation and ground water exploration; bilateral assistance by project - USAID, PRC, FRG, Netherlands, France, Belgium, Switzerland

GNP

GNP at Market Prices (1975), GNP Per Capita (1975), and Annual Growth Rates (1960-75 and 1970-75)

(Estimates of GNP per capita and its growth rate are tentative)

<u>GNP at Market Prices</u>		<u>Growth Rates %</u>	
<u>Amount</u>	<u>Per capita</u>	<u>GNP per capita (real)</u>	
(US \$ Millions)	(US \$)	1960-75	1970-75
80	260	1.7	-4.0

(Source: World Bank Atlas, 1977)

GNP for 1978 is estimated at \$57 million; annual growth rate at zero. (State Dept. Background Notes, 1978).

GDP

\$26.1 million (1976, constant factor cost, ECA)

(Per capita income for 1978 is estimated to be \$180)

Budget

The 1977 Budget for the RCV: 1.4242 bn esc. expenditures;
1.14 bn esc. receipts

Imports

Cape Verde has long had to import basic foodstuffs, not being self-sufficient even in the production of its principal foods, corn and beans (25% of corn requirements and 15% of beans were imported in the period 1960-67). Since the early 1970's, food imports have

increased dramatically, the principal ones (based on total value) now being corn, beans, rice, wheat flour and milk. Principal non-food imports are fossil fuels, cars and trucks, wood and other building materials, and clothing and dry goods.

Principal suppliers in 1975-76 were Portugal, Angola, the Netherlands, the United Kingdom and the USA.

Principal Commodities Imported 1975-1976
('000 escudos):

<u>Imports</u>	<u>1975*</u>	<u>1976*</u>
Animals and animal products	53,445	30,232
Vegetable products	253,381	181,902
Beans	53,837	18,437
Corn	109,143	79,759
Fats and oils	68,439	71,123
Pork fats and lard	44,968	38,859
Foodstuffs and beverages	185,541	161,978
Milk and cream	39,407	20,227
Wheat-flour	41,445	12,939
Wines	40,219	30,396

* Provisional

Exports

Exports have included bananas, coffee beans, purgenuts, potatoes, hides, canned tuna and other fresh, frozen and chilled fish, salt and pozzolana, and water for ships' stores. Buyers in 1975-76 were Portugal, Angola, Central African Empire, Guinea-Bissau, Sao Tome and Principe, United Kingdom and Zaire. The value of exports averaged less than \$2 million per year for 1971 through 1976.

Principal Commodities Exported (1975-76)
('000 escudos)

<u>Exports</u>	<u>1975*</u>	<u>1976*</u>
Animals and animal products	10,989	14,165
Fresh, frozen and chilled fish	6,613	6,185

Crustaceans and molluscs	4,299	7,624
Foodstuffs and beverages	5,882	7,265
Prepared and preserved fish	3,546	4,921
Water for ship's stores	1,893	977
<u>Exports</u>	<u>1975*</u>	<u>1976*</u>
Mineral products	1,642	4,380
Salt	1,581	4,370
Total (incl. others)	61,277	48,034

* Provisional

Agriculture

In 1976, the agricultural sector accounted for an estimated 49% of the GNP, but its share varies with production from rainfed crops, dependent on an unreliable rainfall. Because of the prolonged drought, an estimated 100,000 economically active people, or over 70% of the total labor force in the RCV's agricultural sector, are unemployed, with public works projects now providing jobs for about 40% of that number.

Only about 15% of the total territory is presently usable for farming because of steepness of slopes, aridity, and, in some areas, unsuitability of soils. The islands of Sao Nicolau, Santo Antao, Fogo, Brava, and Sao Tiago, are the most agriculturally productive, the latter normally contributing 70% of the country's maize. The low islands of Sal, Boa Vista, and Maio, which receive least rainfall, support mainly livestock raising and that only when sufficient rainfall produces vegetation for browse.

Besides the limited land and water resources on the islands, two major problems affect the agricultural sector with cause and effect linkages: drought and its consequences, and depressed and stagnant agricultural production.*

The sector has probably not been adequate to meet increasing demands from a growing population and rising income even before the drought, as there has been little development of either agricultural land area or water resources during the last two decades. Food demands may be increasing at a rate in excess of growth of population by as much as 2.5 to 3.0%. The drought, now in its eleventh year, has had a devastating effect, however, on agricultural production. The 58,000 hectares of rainfed crops normally planted (54,000 in corn and beans interplanted and about 4,000 in sweet potatoes) have been reduced to 35,000 hectares of corn (20,000 of them interplanted with beans). Even with adequate rainfall at the beginning of the planting season, farmers are reluctant to plant and risk loss. Likewise, irrigated land area has been reduced 25% from 2,500 to 1,850 hectares as wells and springs have stopped flowing.

Livestock numbers, also drastically reduced to a quarter or a tenth of pre-drought levels, are only slowly recovering. Most fam-

* General Research Corp., Cape Verde, Assessment of the Agricultural Sector, AID, pp. 209-211.

illies own a few animals - goats, pigs, fowl, and less often, cattle and burros. Goats are particularly well suited to Cape Verde's rocky terrain. Moreover, they can survive on scant vegetation for long periods of time and are of the right size to meet needs of families without refrigeration. Because of the present complete absence of range, surviving animals are fed cut browse, remains of harvested plants, hay, and sugar beet pulp and concentrate shipped from Europe as part of an emergency livestock feeding program. In 1975, according to FAO estimates, the number of animals being raised in the RCV for food and milk were: cattle (19,000), asses (7,000) goats (24,000), sheep (3,000), and pigs (19,000). About 15,000 horses, donkeys, and mules provide the main form of transport in rural areas. Early deforestation of the islands left the soil subject to effects of erosion from both wind and occasional torrential rains, and the land has been further degraded by the removal of plants for browse and fuel wood.

Many factors have contributed to a depressed and stagnant agriculture: the colonial heritage, characterized by a lack of planning and development of resources, including the training of scientists and technical staff; an historic emphasis on plantation agriculture with most land being held by large landholders or divided into small plots; and a technology based on traditional practices.

The present emphasis on ad hoc emergency measures leaves little institutional capacity for long range planning for agricultural development. However, many kinds of action must be taken if potentials are to be realized. The building of erosion and torrent control structures has begun, and some studies made on the possibilities for the exploitation of water resources arrive at an estimated maximum total for water development (surface water and ground water) of 140 million cubic meters per year. When domestic needs by the year 2,000 are subtracted, the net supply for irrigation (130 million cubic meters per year) would possibly be enough to water 8,600 hectares. This projected increase could not be realized in less than 20 years and it presupposes maximum feasible development of all sources, including desalination of sea water to supply much of future urban needs as well as increased efficiency in irrigation techniques.* Programs for reforestation and re-establishment of native range are also necessary as are the following recommended actions: conducting agricultural research and experimentation and passing along findings to farmers; providing farmers with credits and inputs; marketing and

* General Research Corp., Cape Verde, Assessment of the Agricultural Sector, AID, pp. 73-74.

crop reporting; developing a strategy for modernization and for relieving rural population densities.

Land Reform

A stated goal of the PAIGC was reform of the inegalitarian land tenure system established by the colonial government, and that effort, as carried out by the Ministry of Agriculture, comprises a number of actions and laws. One of the four main forms of landholding in Cape Verde, the parceria system (a sharecropping plan in which peasant farmers were allocated small plots of land by landed proprietors in return for a share of as much as 50% of the harvest), was abolished after independence and its 26,000 contracts converted into arrendamento contracts (leasing of land for money rent), now the only legal form of landholding by non-owners. A third form of landholding consisted of small peasant proprietorships (approximately 11,000 before independence), and the large plantations employing agricultural workers which made up the fourth form have been nationalized and converted into state farms. Although the majority of peasant farmers still do not own the land they work on and thus may lack motivation to make necessary improvements, new legislation eliminates some of the disincentives of the old system by setting rent controls, compensating tenants for improvements they may make, and providing an agency to regulate disputes between landlords and tenants.

Rainfed Crops

Corn (maize), occupying largest area and the main staple food, is usually interplanted with beans but may accompany other crops. Fertilizers and pesticides are rarely used and the stalks are removed from the fields for use as fuel or livestock feed rather than left to provide organic matter. The growing season follows the rainfall pattern and extends from June to October, with most plantings in June, July and August. The harvest season is in November and December but may extend through March.

Beans include many types: pigeonpea, fava, cowpea, mung bean, green bean, lunatus (sleva), pinto, velvet bean, and jack or horse bean. Beans (second most important crop) are probably the best source of vegetable protein available to the population. Pods and vines are

used for livestock feed. Pigeonpeas are cultivated as perennials; cowpeas produce high yield in shortest period of time.

Sweet potato is a common rainfed and irrigated crop and grows at low and high altitudes. The replacement of present cultivars containing white and off-white starch with seed stocks having orange pigment (providing pro-Vitamin A carotene) would increase nutritional value.

Cassava predominates over maize as a staple food crop only on the island of Sao Nicolau. Stalk sections are used for planting stocks. Improved cultivars and growing methods could increase yields and free much hectareage for other crops.

Peanut culture is usually on rainfed land but the few patches remaining are irrigated. Because of its protein value, the peanut is an excellent food and the leaves and stems make good livestock feed.

Purgenut and castor bean were once important crops, but the area devoted to their cultivation has diminished along with the demand on the world market for purgenut oil and castor oil. Cotton could perhaps be grown to supply a cottage industry but probably could not compete on the world market.

Some problems of rainfed farming: generally ancient cultivars give low yields, although, through a process of natural selection, they appear to be drought, insect, and disease resistant. Fertilizers and pesticides are seldom used. Storage facilities to protect seed from insects and rodents are inadequate.

Irrigated Crops

Sugarcane occupies more than half of the irrigated area, but no sugar is contributed to the economy since all goes into the production of a local alcoholic beverage. Main plantings are made from March through May with the crop taking about a year to ripen. The cane's dense shade allows no companion crops. The use of improved varieties could double yield and free half of the area now used.

Coffee is irrigated only on Santo Antao. Ancient arabica trees are low yielding; newer techniques used in successful coffee cultivation in Central America are not in use in Cape Verde. Leaf smut disease now covers majority of plants.

White potatoes from new strains appear to be giving good results. Irrigated crops are planted in January and February, while those in low, rainfed areas are planted in May and June.

Dasheen (taro) has high water requirements for cultivation, thus limiting it to areas where plenty is available.

Vegetable crops from new hybrids include tomatoes, carrots, cauliflower, herbs, onions, and garlic. Where grown on state farms, vegetables are fertilized and sprayed.

Of tree crops, banana, the most important fruit crop and grown for export, is the only fruit receiving fertilizer, pesticides, and other modern culture. The papaya is probably the second most important fruit. Mangoes, avocados, and other fruits do not produce significantly. Fruit flies reduce quality, and the seedling stock used produces fruit inferior to that on the world market.

Some problems of irrigated farming: irrigation efficiency is low and much water is lost in inadequately maintained aqueducts. Poor cultivation practices produce low yields. Too much land is used for sugarcane.

With improved methods, irrigated land could probably meet local demand for fresh fruits and vegetables.

Estimated Cropland, Yields, And Production Of Principal Crops
Under Permanent Irrigation, Cape Verde

<u>Crop</u> <u>(1)</u>	<u>Area</u> <u>(Hectares)</u> <u>(2)</u>	<u>Share</u> <u>%</u> <u>(3)</u>	<u>Yields</u> <u>MT/</u> <u>hectare</u> <u>(4)</u>	<u>Production</u> <u>(MT)</u> <u>(5)</u>	<u>1976</u> <u>Price/ton</u> <u>(6)</u>	<u>Value</u> <u>(US\$1,000)</u> <u>(7)</u>
Sugarcane ^b	1,065.0	57.5	14.0	14,910.0	--	--
Aguardente ^b	--	--	--	1,704,000.0	\$ 5.20	8,866.1
Bananas ^c	162.0	8.7	42.0	6,804.0	212.49	1,445.8
Cassava ^c	225.0	12.1	25.0	5,625.0	413.90	2,328.2
Sweet potato ^c	225.0	--	15.0	3,375.0	357.84	1,207.7
Potato	132.0	7.1	17.8	2,351.0	474.66	1,115.9
Carrots	12.3	0.7	13.0	159.3	671.37	106.9
Peppers	4.1	0.2	15.0	61.5	447.47	27.5
Tomato	16.0	0.9	20.0	520.0	984.56	315.1
Cauliflower	3.9	0.2	10.0	39.0	402.82 ^e	15.7

Crop (1)	Area (Hectares) (2)	Share % (3)	Yields		Production (MT) (5)	1976 Price/ton (6)	Value (US\$1,000) (7)
			MT/ hectare) (4)				
Cabbage	20.5	1.1	10.0 ^f		205.0	402.82	82.6
Leaf cabbage	15.5	0.8	6.0 ^f		93.0	302.11	28.1
Onions	31.5	1.7	12.0		378.0	537.09	203.0
Melons	7.9	0.4	9.0		71.1	--	--
Watermelon	14.0	0.8	40.0		540.0	--	--
Squash	15.5	0.8	50.0		775.0	447.47	346.8
Garlic	21.5	1.2	3.0		63.9	3,524.67	225.2
Miscellaneous ^d	105.9	5.7	--		--	--	--
Total	1,852.4	99.9	--		--	--	16,314.6

^aThese estimates are based on hectarage being irrigated under current drought conditions. Reduced groundwater has seriously restricted the amount of water from flowing springs, galleries, and wells, although the subsequent reduction in hectarage is unknown. Area, yield, and production data are from Ministerio do Desenvolvimento Rural, 1977, A Producao Agricola Nacional: Perspectivas para 1977-78, Praia: Direccao Geral de Agricultura, Silvicultura, e Pecuaria, pp. 20-49; while price data are from Direccao Geral de Estatistica, 1976, Boletim Trimestral de Estatistica, 4° trimestre, Praia, Table 29.

^bAguardente is an alcoholic distillate made from sugarcane with one ton of cane yielding 114.3 liters of aguardente. Total production is reported in liters, and price is on a per liter basis.

^cCassava and bananas are grown in association.

^dPrincipally tree crops that receive some irrigation.

^eCauliflower price assumed to be the same as cabbage because of lack of price data on cauliflower.

^fEstimated by team agronomist.

(Source: General Research Corp., Cape Verde, Assessment of the Agricultural Sector, AID).

Estimated Cropland, Yields, and Production Of Principal Crops
In Rainfed Agriculture, Under Optimal, Average, And Poor
Rainfall Regimes For a Crop Year, Cape Verde

<u>Crop/Rainfall</u> <u>Regime</u> <u>(1)</u>	<u>Area</u> <u>(Hectarage)</u> <u>(2)</u>	<u>Yields</u> <u>(Kg/hectare)</u> <u>(3)</u>	<u>Production</u> <u>(MT)</u> <u>(4)</u>	<u>1976</u> <u>Price/ton</u> <u>(5)</u>	<u>Value</u> <u>(US\$1,000)</u> <u>(6)</u>
Corn					
Optimal ^b	35,000	800	28,000	(	\$ 9,002.5
Average ^c	30,000	700	21,000	(\$321.52	6,751.9
Poor ^d	5,000	400	2,000	(	643.
Beans ^e					
Optimal	20,000	200	4,000	(	2,894.5
Average	15,000	150	2,250	(\$723.62	1,628.2
Poor	3,000	80	240	(	173.7
Sweet potatoes					
Optimal	4,000	8,000	32,000	(	11,450.9
Average	3,200	5,000	16,000	(\$357.84	5,725.4
Poor	1,000	2,000	2,000	(	715.7
Coffee	287	240	69	\$6,629.74	<u>457.5</u>
Total					
Optimal	39,287	--	--	--	\$23,805.4
Average	33,487	--	--	--	14,563.0
Poor	6,287	--	--	--	<u>1,989.9</u>

^aThese estimates are for optimal, average, and poor rainfall for a crop year given the history and existence of the present drought. For similar rainfall conditions in a crop year falling in a period in which rainfall had been normal, areas (and possibly yields) and, hence, production would have been much higher. Data on area, yields, and production are from Ministerio do Desenvolvimento Rural, 1977, A Producao Agricola Nacional: Perspectivas para 1977-78, Praia: Direccao Geral de Agricultura, Silvicultura, e Pecuaria, p. 44. Price data for 1976 are from Direccao Geral de Estatistica, 1976, Boletim Trimestral de Estatistica, 4° trimestre, Praia, Table 29.

^bOptimal rainfall refers to adequate rainfall at planting time and adequate, well-distributed rainfall throughout the growing season.

^c Average rainfall is adequate rainfall at planting time and poorly distributed or inadequate rainfall during the rest of the growing season.

^d Poor rainfall is defined as inadequate rainfall at planting time and poorly distributed or inadequate rainfall during the rest of the growing season.

^e Beans are grown in association with corn.

(Source: General Research Corp. Cape Verde, Assessment of the Agricultural Sector, AID)

Total And Agricultural Land Area In Cape Verde, 1978 (Hectares)

<u>Island</u> (1)	<u>All Land</u> ^a (2)	<u>Agricultural</u> ^b			<u>Share of</u> <u>Agricultural</u>
		<u>Total</u> (3)	<u>Rainfed</u> (4)	<u>Irrigated</u> (5)	<u>Land In</u> <u>Total</u> 2/1 (6)
Boa Vista	62,000	482	480	2	0.8
Brava	6,740	570	540	30	8.5
Fogo	47,600	14,237	14,231	6	29.9
Maio	26,900	823	806	17	3.1
Sal	21,600	---	---	---	0.0
Santiago	99,090	31,980	31,030	950	32.3
Santo Antao	77,900	10,157	9,357	800	13.0
Sao Nicolau	38,800	1,634	1,605	29	4.2
Sao Vicente	<u>22,700</u>	<u>168</u>	<u>150</u>	<u>18</u>	<u>0.7</u>
Total	403,330	60,051	58,199	1,852	14.9

^a Direccao Geral de Estatistica, 1977, Boletim Trimestral de Estatistica, 1° trimestre, Praia, Table 2.

^b These estimates are for land available for crop production during periods of normal rainfall, and probably overstate land use during the drought (even in a year with good rainfall) as farmers avoid risk. See Ministerio do Desenvolvimento Rural, 1977, A Producao Agricola Nacional: Perspectivas para 1977-78, Praia: Direccao Geral de Agricultura, Silvicultura, e Pecuaria, Tables VI and VII. The

area devoted to agriculture as reported by MDR exceeds, by 15 to 20%, estimates of actual use in the last years of the drought by FAO and Hargreaves.

(Source: General Research Corp., Cape Verde, Assessment of the Agricultural Sector, AID)

1979 Status

With total cereal import requirements of 60,000 tons, pledges and commercial imports total 33,500 tons as of March 1979. Wheat and rice pledges almost meet needed requirements while those for maize cover needs only up to September. Major problem is the delay in arrival of donated cereals. No pledges have been announced so far to meet import requirements of 10,000 tons of beans.

Physical/Climate

Although located in the Atlantic Ocean 500 to 600 km west of Senegal, the RCV is an extension of the African zone of Sahelian climate characterized by sparse, erratic rainfall. The cold Atlantic current adjacent to the archipelago also produces aridity. Climatic conditions vary with elevation and exposure to winds. There is a 5.5 degrees centigrade drop in average temperature for each 1,000 meters of elevation, making temperatures cooler and less variable in higher zones. Rain occurring from the precipitation of the moisture content of winds being forced upwards is greatest between 300 and 1,000 meters on windward slopes. Higher elevations receive less orographic rain. Steep northeastern slopes of mountains receive two or three times greater annual rainfall than coastal plains and foothills. Low areas and leeward slopes experience greatest aridity.

The two seasons are a cooler, dry, windy season from December to June and a warmer season between July and November. The annual temperature range between maximum and minimum is about 6°, with mean monthly temperatures of 22.4°C to 27°C. The average maximum is 24.6° and the average minimum is 16°. September is the hottest month and February the coolest. Humidity is generally high, with the relative humidity increasing at higher elevations as temperatures decrease.

Strong winds, which are almost constant in the islands, increase aridity by evaporation. Dry, northeast trades blow most of the year and mainly affect the windward islands aligned from WNW to ESE (Santo Antao, Santa Luzia, Sao Vicente, Sao Nicolau and Boa Vista). The moister southwesterly winds blow with variability from August to October and mainly affect the more southerly leeward group aligned WSW to ENE (Brava, Fogo, Sao Tiago and Maio). The harmattan, a hot dry wind from the African continent, blows intermittently from October to June and on occasion produces a haze over the islands from its content of desert dust.

Long term climatic swings and the high degree of variability of rainfall in the RCV are related to the periodic shifting of the paths of controlling ocean and wind currents. Atmospheric turbulence created when South Atlantic monsoons replace the trade winds and the harmattan produces rainfall, but since Cape Verde lies slightly to the north of the path of the seasonal migration of the intertropical convergence (ITC), small shifts can have a critical effect on the

timing and amounts of rainfall.* Practically all rainfall occurs during the three month period between August and October, often as torrential storms. From 20% to 50% of rainfall over a twenty year period occurred in storms exceeding 50 mm a day. Amounts occasionally exceeding 100 mm a day may be greater than the mean annual rainfall for that location. Run-off from steep slopes has usually been lost because of the lack of "braking" systems. The capital city of Praia has a long term average annual rainfall of 250 mm, but in the last 25 years, rainfall there has been "normal" or above only six years. The islands are subject to cyclical drought. The current drought began in 1968, and there has been only one year (1975) of normal rainfall since its onset.

* General Reference Corp., Cape Verde, Assessment of the Agricultural Sector, AID

Landforms

The Cape Verde Islands, situated in the Atlantic Ocean between latitude 14°48' and 17°12' N, and longitude 22°40' and 25°22' W, are 500 to 600 km west of Senegal. Grouped in an irregular pattern, they extend 332 km (206 mi) SE-NW and 299 km (186 mi) NE-SW. The ten islands and five islets are divided into two groups with respect to the prevailing northeast winds. The northern windward group (Barlovento) consists of, from west to east, Santo Antao, Sao Vicente, Santa Lucia (uninhabited), Sao Nicolau, Sal, and Boa Vista; the southern leeward group (Sotavento) is made up of Brava, Fogo, Sao Tiago, and Maio. The total coastline is 823 km (517 mi) in length, and the country covers approximately 4,000 sq km (1,557 sq mi), being about a quarter larger than the state of Rhode Island.

The islands, which are of volcanic marine origin, rising from depths of more than 1,500 fathoms, are generally steep and rocky. Landscapes associated with extrusive igneous or volcanic activity predominate. Thick layers of basalt underlie rocky plains which drop 100 meters (325 ft) in places to rocky shores. Plateaus, also of basalt flows, relieve the precipitous forms of craggy peaks built upon the plains. The only presently active volcano, which last erupted in 1951, is on the island of Fogo where Pico do Cano rises to more than 9,000 ft. Other islands with peaks over 4,000 ft are Sao Tiago, Santo Antao and Sao Nicolau. The islands of Sal, Maio and Boa Vista are low-lying and dry. On the windward slopes of the

mountainous islands, where rainfall is highest and water erosion greatest, steepness may exceed 45 degrees and valleys are deeply cut. Erosion of loose soil by water run-off in heavy storms and by sands carried at high winds is characteristic of the islands.

Land Use

Land forms are as important as soil types in determining land use in the RCV since temperature and humidity depend on altitude and exposure to prevailing winds. Only the islands of Brava, Fogo, Sao Tiago, Sao Nicolau, and Santo Antao have mountains sufficiently high and massive enough to capture orographic rainfall which can sustain some vegetation and supply wells and streams.

About 15% of the total territory is suitable for farming--rainfed and irrigated. The lower islands of Boa Vista, Maio, Sal, and Sao Vicente have never supported much rainfed farming, while on the mountainous islands, the zone for optimum humidity and temperature is between 300 and 1,000 meters on windward slopes. Lower elevations (semi-arid zones), most afflicted by drought, have traditionally been planted in corn and beans. Humidity at higher levels is in better range for corn cultivation, but temperatures are too cool. Millet and sorghum may be better suited to low, drier zones.

Irrigated farmland, supplied from springs within canyons and valleys, is subject to damage from flash floods. The main irrigated valleys are on northeast and windward sides of Sao Tiago, Santo Antao, and, to a lesser extent, Sao Nicolau. Footslopes, better protected from flooding, have been carefully terraced throughout the islands even where steepness of slopes permits only very narrow fields. Irrigated area has decreased with drought; possibilities for expansion depend on success of dam and erosion control projects and the tapping of groundwater reserves.

Soils are of generally coarse texture with limited capacity to retain water. Those most useful to agriculture are sandy, clayey loams formed on cooler, moister areas on slopes and at low elevations, usually planted in corn and beans. Alluvial and colluvial soils in valley bottoms are those most often irrigated. Although both islands are generally rocky, Sao Tiago has 2,650 hectares of alluvial soils and about 15,800 hectares of loams, and Fogo has about 1,900 hectares of the latter. The generally arid and over-grazed land of Boa Vista supports only sparse degraded range, although patches of loam permit

corn and bean cultivation. Soils on Sal and Maio are thought to be similar, while those of Brava are most like Fogo's. Santo Antao, Sao Vicente, and Sao Nicolau are likely to have soil characteristics in common. On the latter, the valley of Achada da Faja, with brown sandy loams, and nearby plateaus are suited to agriculture; elsewhere on the inland the land is too rocky, steep or arid for farming or grazing.

Forest plantations presently occupy about 1,330 hectares, but the area could be expanded. Although about 50% of the RCV has been considered potential pasture, only about 1/6 of this has ever been more than poor range. Some regeneration of range, now non-existent, seems possible, while new systems of animal feeding from cut storage and silage could be developed.

Rivers

The RCV has no navigable rivers or year round streams. In some of the mountainous islands, the peaks are interspersed with canyons in which intermittent streams (ribeiras) may be found. Stream flows may be destructive after heavy rains.

Coastline

The coastline is about 823 km in total length. There are rocky shores with few natural harbors on the northeastern sides of the islands; elsewhere, there are several fine harbors, with Porto Grande at Mindelo on Sao Vicente being the principal port. (See also Ports). Sal, Boa Vista and Maio have wide, curving beaches. Coasts are generally lacking vegetation and in places sheer cliffs rise from the sea.

Mountains

A high relief, deeply and densely incised, characterizes the mountainous islands of Sao Tiago, Santa Antao, Fogo, Brava and Sao Nicolau. The canyons have generally steep side slopes and narrow

steep valleys. The slopes of valleys and ravines range from 10 to 50% and the watersheds (catchment areas) from 30% to vertical. Santo Antao has mountains which crest at 6,350 ft while Sao Tiago's rise to 4,300 ft and Sao Nicolau's Monte Gordo to over 4,200 ft. Pico do Cano on the island of Fogo reaches approximately 9,279 ft above sea level.

Volcano

Pico Grande (Pico do Cano) on the Island of Fogo is located at lat. 14°57' N and long. 24°21' W. The height of the central cone above sea level is 2,829 m while that of the caldera rim is 2,700 m. The island is made up of this single volcanic mountain with an area of 576 sq km. It is located with the other Cape Verde Islands on the African continental slope, apparently arising from the intersection of two tectonic features (probably rift belts), one running east-west along the southern islands and the other running northward to the island of Sao Nicolau.

The mountain is thought to have been formed by successive lava flows. The huge caldera, inside of which is a regular central cone, marking the position of the main vent, at the summit is 8 km in diameter. Most recent lava flows found an escape toward the east coast through that part of the caldera where no rim exists.

From settlement of Cape Verde until mid-eighteenth century, the main crater was continuously active, its activity consisting of moderate explosions, vapor emissions and occasional flank effusions of lava. The continuous activity abruptly ceased and only short-lived eruptions (rarely exceeding one month) from adventive vents at base of central cone have occurred at intervals since. The lava flows from these eruptions destroyed arable land and other property near the east coast. Since mid-eighteenth century, eruptions have occurred in 1785, 1799, 1847, 1852, 1857 and 1951. There were casualties with that of April 9, 1847, but they were due to an accompanying earthquake.

Roads

The road network in the RCV is about 758 km in total length of which 313 km (41%) are cobbled roads of igneous rock, 162 km (21%) are earth roads, and 283 km (37%) are ordinary tracks. Widths range from 3.5 to 6 meters. Six of the ten islands, including Fogo, Sao Nicolau, Santo Antao, and Sao Tiago, have some roads. More than half of the road network is on Santo Antao and Sao Tiago (each with approximately 250 km each).

Steepness, rockiness, cobbled roads make transfer of personnel and equipment difficult. Roads are also costly to build and maintain. Many steeper valleys are relatively isolated. Maintenance is usually carried out only when extraordinary circumstances (storms and avalanches, make it necessary and by labor intensive means. The Sub-director of Roads, Airports and Ports under the authority of the Administration of Public Works has responsibility for road maintenance.

Projections for changes in the road network by 1982, as determined by CILSS, are based on an assumed annual growth rate of 15%. The network would then consist of 871 km, divided into 345 km of cobbled roads, 263 km of earth roads, and 263 km of track. Sao Tiago's share would decrease slightly while the other islands' shares would increase somewhat. No construction is planned for islands presently without roads.

1977 Road Network
(in km)

<u>Island</u>	<u>Cobblestone roads</u>		<u>Type of Road</u>		<u>Unimproved tracks</u>	<u>Total</u>
	<u>6 m</u>	<u>3.5 m</u>	<u>6 m</u>	<u>3.5 m</u>		
Sao Tiago	157	16	42	8	25	248
Sao Nicolau	-	18	-	11	38	67
Fogo	3	36	23	-	57	119
Sao Vicente	9	6	-	38	-	53
Sao Antao	54	14	-	22	163	253

<u>Island</u>	<u>Cobblestone roads</u>		<u>Type of Road</u>		<u>Unimproved tracks</u>	<u>Total</u>
	<u>6 m</u>	<u>3.5 m</u>	<u>6 m</u>	<u>3.5 m</u>		
Sal	=	=	18	=	=	18
Total	223	90	83	79	283	758

Vehicles

The majority of vehicles are on the island of Sao Tiago but traffic flows are small. Transport is usually by foot or with animals. In 1975 the vehicle fleet in Cape Verde consisted of 2,699 cars, 1,530 motorcycles, and 775 trucks and buses for a total of 4,004 vehicles. They are equipped with right-hand drive.

Railways

There are no railways in the RCV.

Ports

Several small harbors make some inter-island transport of both passengers and freight possible. There are ferry links between Fogo and Brava and between Sao Vicente and Santo Antao. At the present time, only about 15 small mostly wooden vessels, of poor and deteriorating condition, operate among the islands. Port facilities exist at Praia, Sao Filipe (Fogo), Brava, Maio, Porto Novo (Santo Antao) and Porto Grande (Mindelo, Sao Vicente). Both Porto Novo on Santo Antao and Porto Grande on Sao Vicente are important international fueling stops, with the latter considered the RCV's major port.

Porto Grande

Lat. 16°52'55" N; long. 25°00'25" W.

Accommodation: The Porto Grande is a spacious and safe harbor. Entrance from N or S. Pilot meets vessel at entrance to harbor. 24 hours notice of E.T.A. required. R. of T., 1.22 m approx. Normal anchoring berths from 10 to 20 m depth. Cargo worked by ship's gear. Fishing boat and small craft piers available. Mole accommodates four cargo vessels but has no cargo cranes. A harbor installation built by the Government consists of a quay 430 m long with depth alongside of 3.50 to 9.45 m set out from the shore in an east-west direction just south of Pontinha Point. From the end of this quay an outer quay runs in a SW direction, having a length of 310 m with depth alongside of approx. 9.45 m. An inner quay, length, 170 m and a depth alongside of 8.84 m runs parallel to the outer mole. Provisions available with 24 hours notice.

Shiprepairs: Two shipways owned by Ministerio da Coordinacao Economica, Oficinas Novais de S. Vicente, each having 250 tons lifting capacity.

Towage: Two tugs of 1,200 and 600 hp respectively. During berthing/unberthing of vessels over 500 g.r.t. the use of tugs is compulsory.

Pilotage: Compulsory inwards; optional outwards.

Airport: N.I.A. Sai Island (16° 40' N, 23° 0' W), about 176 km E

General Holidays: New Year's Day, National Heroes' Holiday, International Women's Day, May Day, International Children's Day, Corpus Christi, Independence Day, Nationality Day, All Saint's Day, Immaculate Conception, Christmas Day.

Although offices are closed on the above holidays, loading and discharging operations are not affected.

Local Holiday: Saint Vincent's Day (January 22)

Currency: Escudo Caboverdrano

Working Hours: 07:00 to 09:00, 09:30 to 12:00, 13:00 to 19:00, 20:00 to 24:00 hours. Normal hours: 07:00 to 17:00

Shipping Lines

Cargo-passenger ships call regularly at Mindelo on Sao Vicente from Lisbon and Bissau.

Companhia Nacional de Navegacao: agent in Sao Tiago: Joao Beniotele de Carvalho, Ltda., Caixa Postal 56, Praia.

Companhia Colonial de Navegacao: agent in Sao Tiago: Francisco Jose da Costa, Rua Sa da Bandeira 40-48, Praia.

Sociedade de Navegacao Guine -- Cape Verde (Naguicave).

Airports

There are four airports, the principal one at Espargos on Sal Island, and four airfields. Domestic flights by the Transportes Aereos de Cabo Verde (TACV) are another means of inter-island transport. The international airport on Sal, renamed Amilcar Cabral International Airport in 1975 in honor of the assassinated former nationalist leader of the PAIGC, is an important refueling stop on many African flights.

There are plans for establishing a jointly operated airline with Guinea-Bissau.

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.

<u>Location</u> <u>Coordinates</u>	<u>Eleva-</u> <u>tion M/</u> <u>Temp C</u>	<u>Runway Characteristics</u>				<u>Aircraft/</u> <u>Strength</u> <u>(1000 kg)</u>	<u>Fuel/</u> <u>Octane</u>
		<u>NR/Type</u>	<u>Slope</u> <u>%</u>	<u>Aircraft/</u> <u>Length M</u>	<u>CL</u>		
Sal I/ Amilcar Cabral Reg S							
16° 44' 37"N 22° 57' 01"W	54 27.4	02/20	0.09	3270	A	LCN80h40	100,JA1

Remarks: Alternate Aerodromes: Bissau/Craveiro, Dakar/Yoff, Free-town/Lungi, Las Palmas/Las Palmas De Gran Canaria.

Aids: ILS, 02I, VOR, LPA02I, LSA20+, LR, LTX, LB, LO, MD, MC, MT, MTD, MTX, MO. Clearway 02 & 20-300, L6, L7, L9. No telex.

* Key

INSTR - Instrument Approach Runway
N-INSTR - Non-Instrument Runway

Radio Aids

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

Lighting Aids

PA - Precision Approach Lighting System
SA - Simple Approach Lighting System
VA - Visual Approach Slope Indicator System
AV - Abbreviated Approach Slope Indicator System
R - Runway Edge, Threshold & Runway End Lighting
-C - Runway Center Line Lighting
TD - Runway Touchdown Zone Lighting
TX - Taxiway Lighting
B - Aerodrome or Identification Beacon
O - Obstruction Lighting

Marking Aids

- D - Runway Designation Markings
- C - Runway Center Line Markings
- T - Runway Threshold Markings
- TD - Runway Touchdown Markings
- S - Runway Sidestripe Markings
- FD - Fixed Distance Markings
- TX - Taxiway Center Line & Holding Position Markings
- O - Obstruction Markings

Additional Lighting

1. Portable Runway Lights (electrical)
2. Boundary Lights
3. Runway Flood Lights
4. Low Intensity Runway Lights
5. Low Intensity Approach Lights
6. High Intensity Runway Lights
7. High Intensity Approach Lights
8. Sequenced Flashing Lights
9. Visual Approach Slope Indicator (VASI)
(an asterisk (*) preceding the element (L*4) indicates lighting available on prior request by phone, telegram, etc.)

Airfields

Sao Vicente, Praia, Sal, Sao Nicolau, Boa Vista, Fogo and Maio.

Personal Entry Requirements

Passport required. Visa not required for stay of up to 48 hours.

Smallpox vaccination certificate required of travelers 3 months of age and over only from those who within the preceding 14 days have been in Ethiopia.

Cholera certificate required of travelers arriving from infected areas.

Yellow fever vaccination certificate required from travelers one year of age and over except that no certificate is required of those arriving in Boa Vista, Maio, Sal, Santiago, and Sao Vicente.

Aircraft Entry Requirements

Private and non-scheduled commercial aircraft overflying or landing for non-commercial purposes need not obtain prior permission; however a flight plan must be on file and be received by proper authorities at least two hours in advance.

All non-scheduled commercial aircraft, affinity charter, and tour charters with more than 6 passengers or making more than one flight a month and landing for commercial purposes must obtain prior permission at least two working days prior to departure from the Direccao Geral de Aeronautica Civil, CP 118, Praia, Cape Verde Islands (telegraphic address: None/Telex: None). All requests must include (a) name of operator, (b) type of aircraft and registration marks, (c) date and time of arrival and departure, (d) place(s) of embarkation and disembarkation of passengers and cargo, (e) nature of traffic and purpose of flight, (f) name, address and business of charterer, if any.

Aeronautical Information Source: AIP by NOTAM

International NOTAM Office: Dakar -- Gocoyne

Domestic Airlines

Transportes Aereos de Cabo Verde (TACV): Rua da Serpa Pinto, Praia; connects Sao Vicente, Praia, Ilha do Sal, Sao Nicolau, Boa Vista, Fogo and Maio; also weekly services to Senegal and Guinea-Bissau; fleet: three BN-2A Islander, two HS-748 Avro and one Twin Otter.

Foreign Airlines

The major international civilian airline servicing the RCV, Transportes Aereos Portugueses (TAP), operates flights 2 or 3 times a week from Lisbon to Sal Island and from Bissau, capital of Guinea-Bissau.

Aeroflot calls weekly on the Europe-Africa route, and South African Airways calls at Sal on Europe-South Africa route.

Air Distances

<u>From</u>	<u>To</u>	<u>Statute Miles</u>
Cape Verde	Azores	1,499
	Cape Town	4,509
	Gibraltar	1,762
Cape Verde (Cont'd)	London	2,731
	New York	3,355
	Paris	2,666
	Rome	2,772
	Washington, D.C.	3,486

Electric Power

In 1977 the RCV had a 6,000 kw capacity; 7 million kwh of electricity were produced from thermal sources (20 kwh per capita). The supply is 220 volts, AC 50 cycles. Constant winds could possibly be harnessed to generate mechanical and electrical power (for use with water pumping and storage systems).

Radio Network

An inter-island radio relay system connects the several islands. HF radio connects the islands with Portugal. External links are by means of two co-axial submarine cables (station at Mindelo) and by radiotelegraph with facilities available at Sai, Praia, and Mindelo. The islands have one FM and five AM radio stations and approximately 31,000 radio receivers were in use at the end of 1975.

Stations

Emissara Oficial de Cabo Verde: Praia, Sao Tiago; official station

Radio Clube Mindelo: Mindelo, Sao Vicente

Voz de Sao Vicente: Mindelo, Sao Vicente

Telephone System

An estimated 1,600 telephones (0.3 per 100 population) are in use in the islands.

Television

There is no television broadcasting in the RCV.

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