

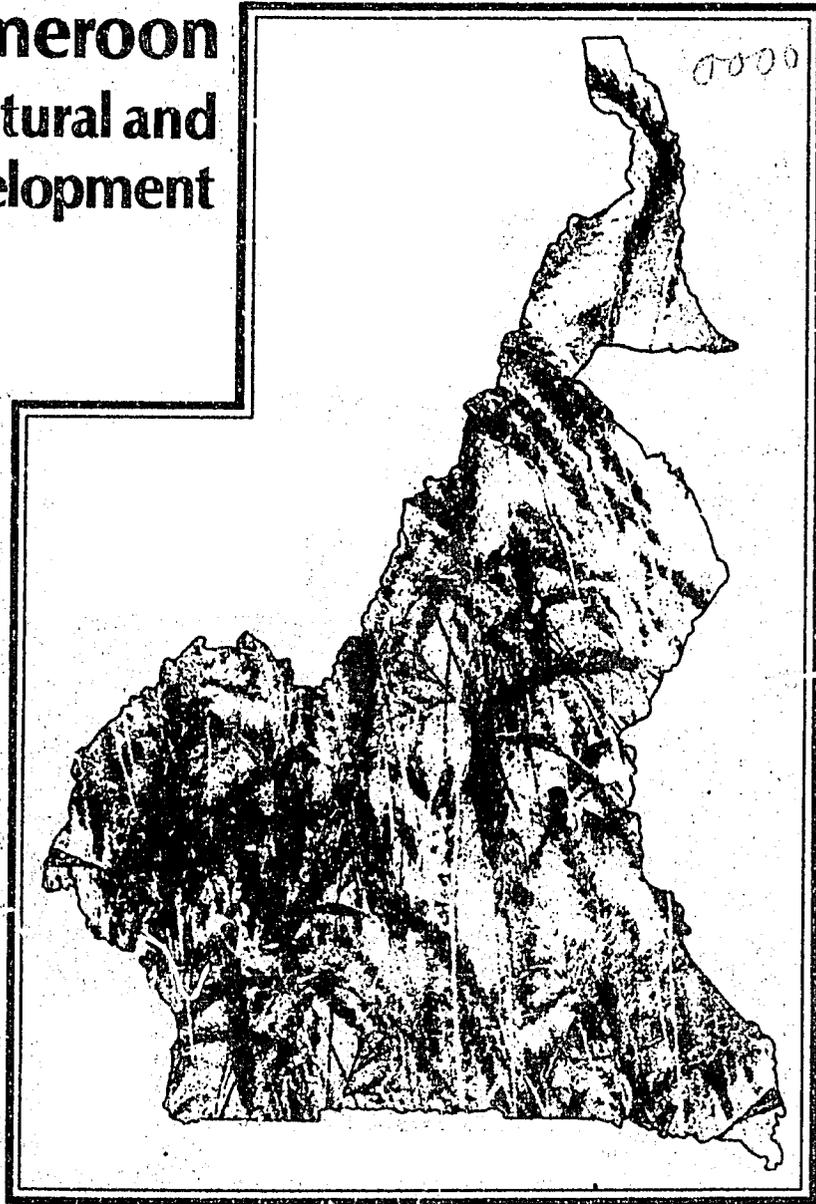
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AGRICULTURE
SECTOR
BRIEFING
PAPER

OCTOBER
1983



United Republic of Cameroon

U.S. Agency for International Development

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INTRODUCTION

This document has been prepared for use in briefing visitors to the Agriculture and Rural Development (ARD) Office of USAID/Cameroon. All of the staff of the ARD Office contributed material to this paper. In addition, several studies conducted by the Government of Cameroon and International Agencies were used in compiling the report. William Evans revised this edition.

I hope the paper is useful to USAID Consultants, American Business Representatives, and others who have a special interest in Cameroon agriculture.

William F. Litwiller
Agriculture and Rural
Development Officer

October 25, 1983
Yaounde, Cameroon

A

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THE CLIMATE OF CAMEROON

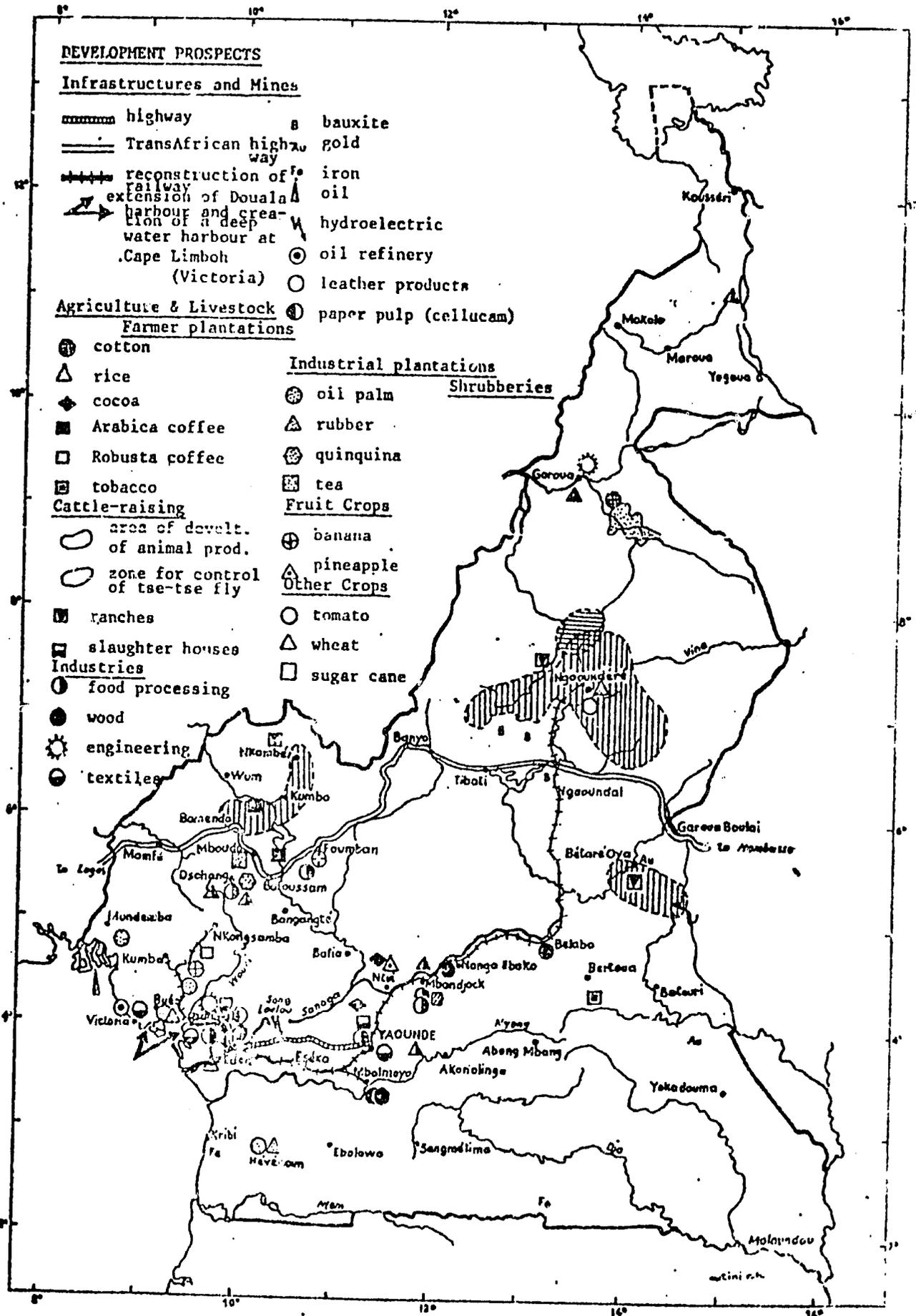
Having an area of 474,000 square kilometers, Cameroon extends between latitudes 2° and 13° North for over 1300 kilometers. The country has a great diversity of climate ranging from the humid tropics near the coast where annual rainfall is among the heaviest in the world to the Sahelian zone which has a 9 to 10 month dry season. The regular succession of climatic zones from South to North is broken by intervening mountains and plateau areas which affect both rainfall and temperature. There is a general map of Cameroon showing cities, towns, transportation network, and other development prospective on page 2 and a map of major administrative regions on page 3.

Four main types of climate can be distinguished in Cameroon. Brief descriptions of each follows with corresponding maps on pages 4 and 5 .

- (a) Humid Tropics - having very heavy rainfall and a short dry season. This zone includes the Littoral region of Cameroon (Douala and Limbe) and the mountain region of West (Nkongssamba-Dachang). Rainfall in this zone can attain up to 5000 mm with 250 rainy days per year.
- (b) Sub-Humid Tropics - including the forest zone of the south, and the southern reaches of the central savanna area of Cameroon. Rainfall in this area is between 1500 and 2000 mm per year.
- (c) Sudanese Zone - considered to be a very healthy climate, this zone extends north of Adamoua and is marked by two seasons, rainy and dry, of equal length. Although rainfall may attain 1600 mm per year, evapotranspiration rates are higher than in the tropical sub-humid zone located to the south. The mean maximum temperature varies between 26°C and 28°C and the minimum between 16° and 18°C.
- (d) Sahelian Zone - having a short rainy season and a long dry season. Total rainfall is less than 1000 mm distributed over a three month period. Temperatures may attain 30°C and evapotranspiration rates are very high.

SOILS OF CAMEROON

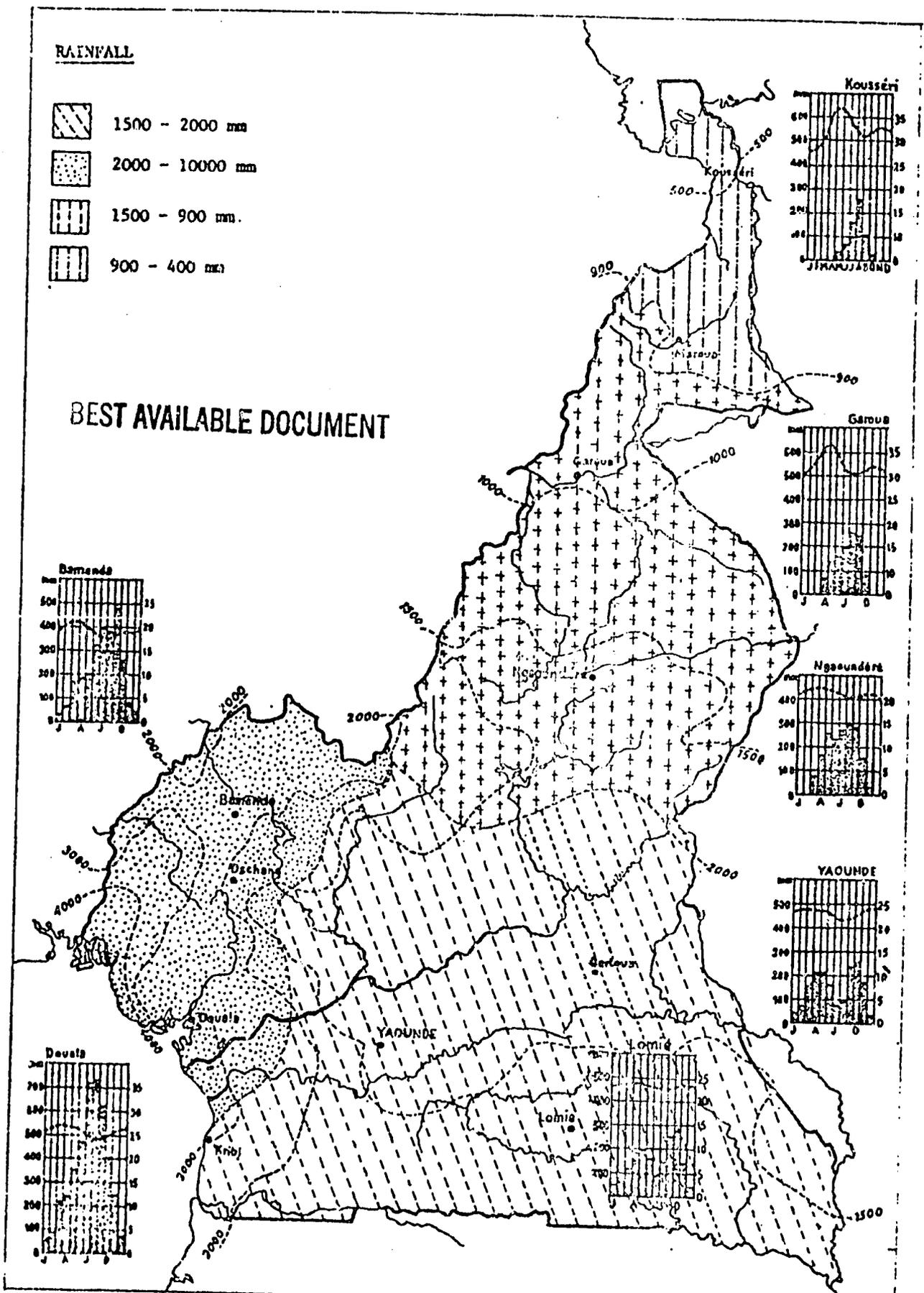
The majority of the soils in Cameroon consist of varying laterites (oxidols). The laterites were formed over long periods of time through weathering and decomposition of the underlying granite. These are soils which are largely composed of hydrated oxides of iron and aluminum, highly weathered clay-like material that changes irreversibly to concentrations of hardpans, or crusts when dehydrated. Soils of volcanic origin are also found in Cameroon. These are of more recent geologic origin and are only partially laterized and are more workable than the soils derived from the ancient granites.

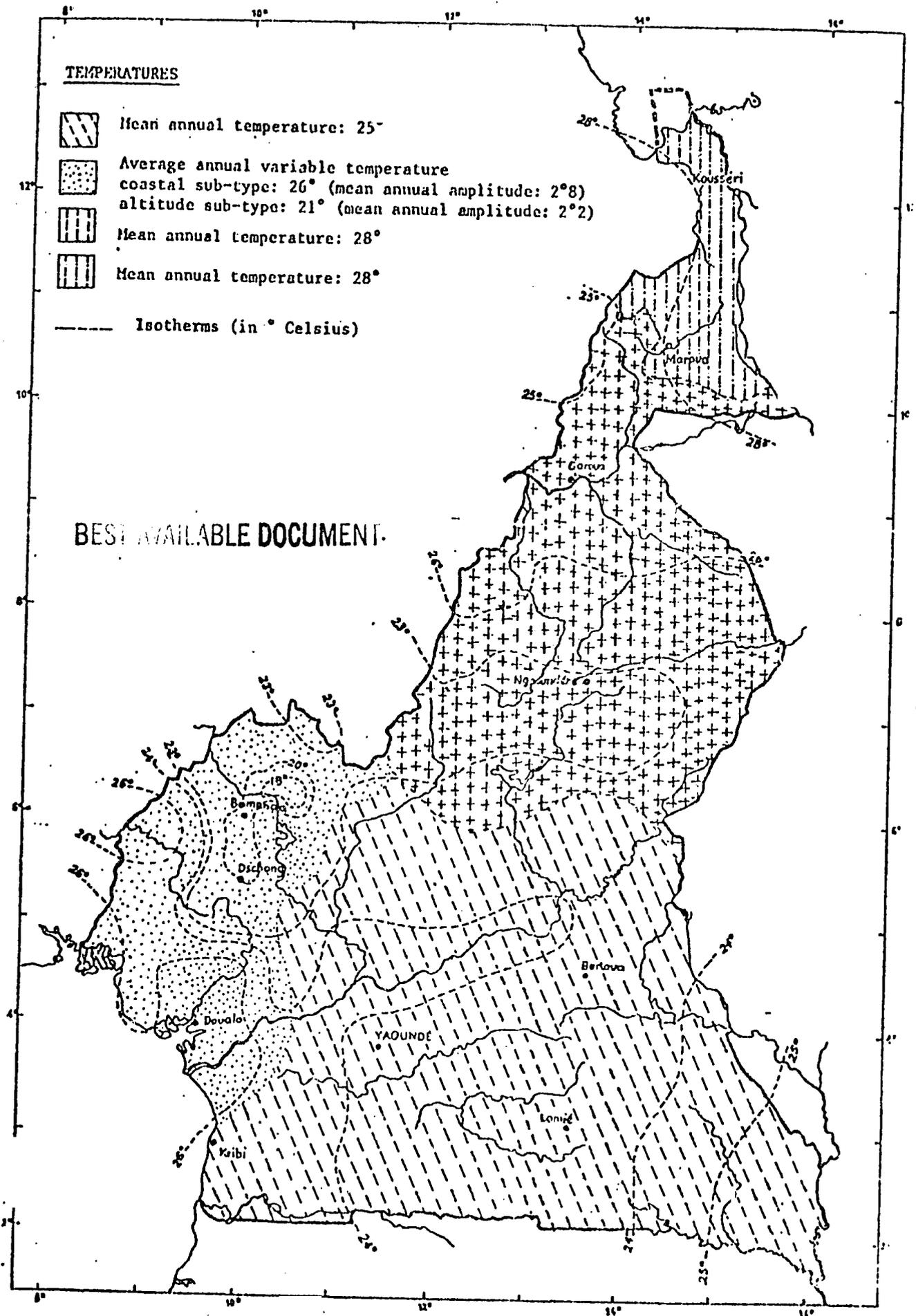


RAINFALL

-  1500 - 2000 mm
-  2000 - 10000 mm
-  1500 - 900 mm
-  900 - 400 mm

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The soils in Northern Cameroon consist of varying laterites, and because the rainfall is under forty inches per year, the soils have not been thoroughly leached. The soils are coarse in texture, and water percolates to a lower strata quickly and out of reach of most plant life. The soils along the northeastern border contain more humus due to the vegetation along the Chari and Logone rivers. Subsistence crops are grown throughout this area. The soils between Garoua and Maroua are characteristic of varying laterites and degrees of aging. The flood plains are richer and more workable during the dry season due to the water holding capacity of the subsoils. Soils of volcanic origin cover wide areas between 7°N and 8°N latitude (the vicinity of Ngaoundere), and these types of soils are found along the western border as far north as the Mandara Hills. These soils are partially laterized and are more workable than the soils derived from ancient granites.

Soils of volcanic origin are also prevalent in the Northwest Province near the Bamenda Highlands and extending southward in the following plateaus on both sides between the Southwestern and Western provinces. Further southwest, relatively young volcanic soils are found on the slopes of Mount Cameroon. These soils, although relatively young, are quite productive.

Most of the soils in South Central and Eastern Provinces are derived from granites. As the area receives more rainfall than the North, plant growth encourages soil building. However, in the areas south of approximately 5°N latitude, the heat, humidity, and heavy rainfall oxidize and leach away most of the humus from the forest. Thus, weak lateritic soils are found on most of the lower plateaus in the south and southeast.

The Littoral Province and the band of lowlands along the 160-mile Cameroon coast consist of dark sedimentary soils and alluvial sedimentary materials carried down to the deltas and flood plains by many rivers. In the Northern Departments of the Littoral Province good volcanic soils are found along the plateaus and ridges of the Cameroon mountains.

USAID financed a soil resource inventory for the soils of the extreme north part of Cameroon in 1974. A National Soil Service is being established to survey the country and to do soil testing. Most soil tests are analyzed at the Ekona Soil Laboratory in the Southwest Province. Some records of soil surveys can be found at the Ekona Soil Laboratory or at the Institute of Agricultural Research at Nkolbisson.

The pH of the soils in Cameroon are moderately acidic and in designing future agriculture projects USAID must consider the type of lime and fertilizer that will correct the soil pH.

POPULATION BASE OF CAMEROONIAN AGRICULTURE

Approximately 67% of Cameroon's population of 8.9 million lives in rural areas, and about 70% of the active labor force of the country is engaged in agriculture. The percentage of rural population is declining with most rural sector emigration accounted for by the rapidly growing cities of Douala, Yaounde, Edea, and Limbe. Population in the rural sector is very unevenly distributed, with the most densely populated area being the fertile volcanic highlands of the West and Northwest. (See maps pages 8 and 9).

The 1976 distribution of population according to administrative provinces is as follows:

DISTRIBUTION OF POPULATION WITHIN CAMEROON*
1976

PROVINCE	POPULATION	DENSITY (INHABITANTS PER KM ²)
Central South and South	1,491,945	12.9
East	366,235	3.4
Littoral	935,166	46.2
Adamawa, North, Far North	2,233,257	13.6
Northwest	980,531	56.7
West	1,035,597	74.5
Southwest	620,515	24.9
Total	7,663,246	16.5

Specialization of the activities of Cameroon's rural sector population is mainly determined by considerations such as climate, soils, and topography, which are also determinants for density. The wet littoral areas of southern and western Cameroon support a wide variety of plantation and export crops including coffee, cocoa, palm and rubber. The West and Northwest are considered the grainery of Cameroon, supporting a number of important food crops, including maize on rich volcanic-based soils. In the North, because of dry conditions, cattle raising and crops having a high drought resistance, such as sorghum and millet predominate.

*Source: IFORD (Institute of Training and Demographic Research)
Population census for Cameroon 1976.

RURAL DENSITY (by subdivision and district)

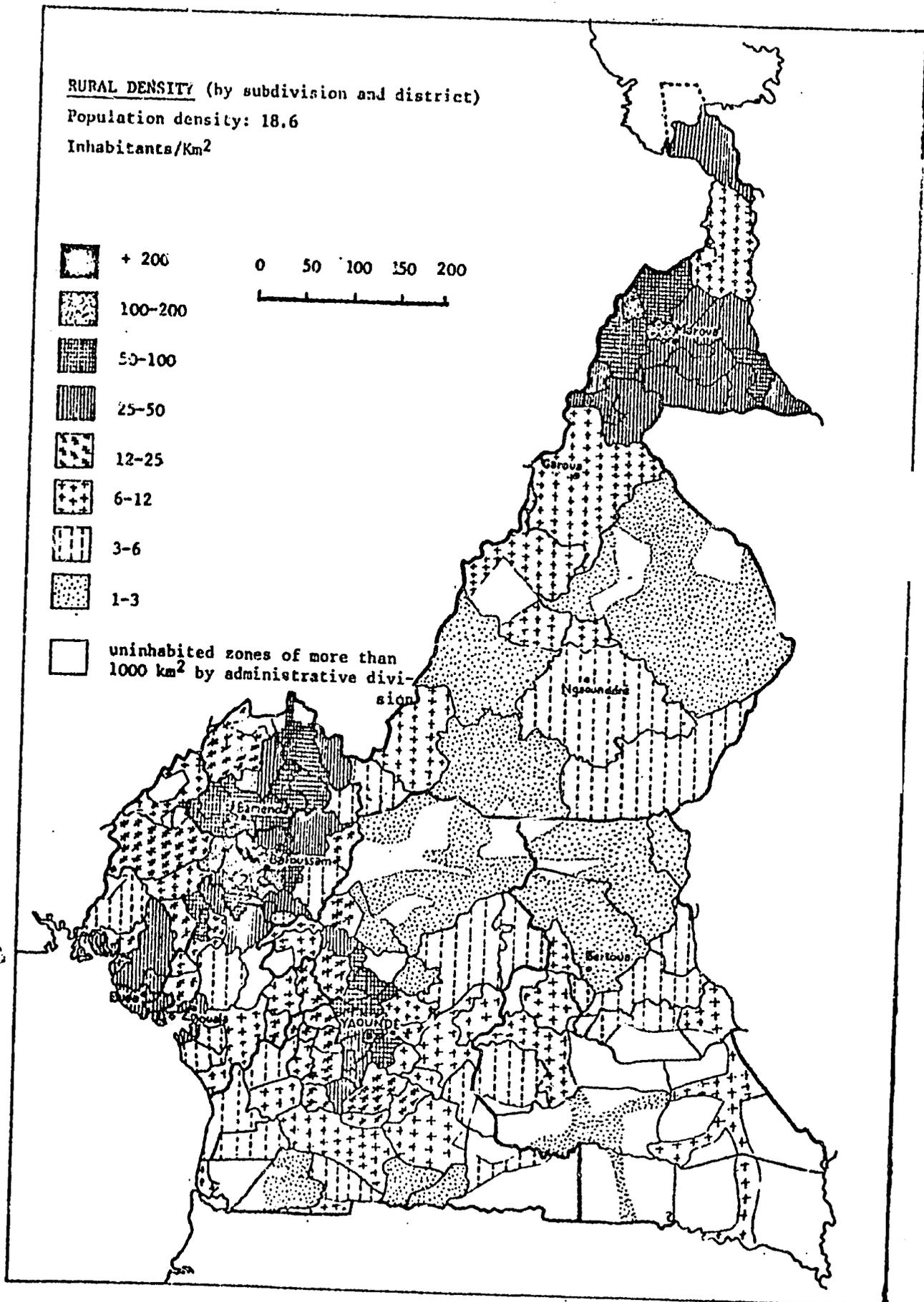
Population density: 18.6

Inhabitants/Km²

-  + 200
-  100-200
-  50-100
-  25-50
-  12-25
-  6-12
-  3-6
-  1-3

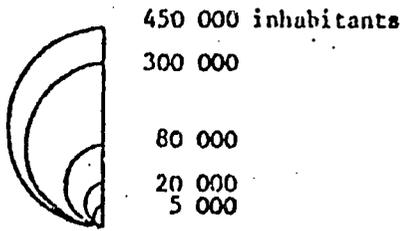
 uninhabited zones of more than 1000 km² by administrative division

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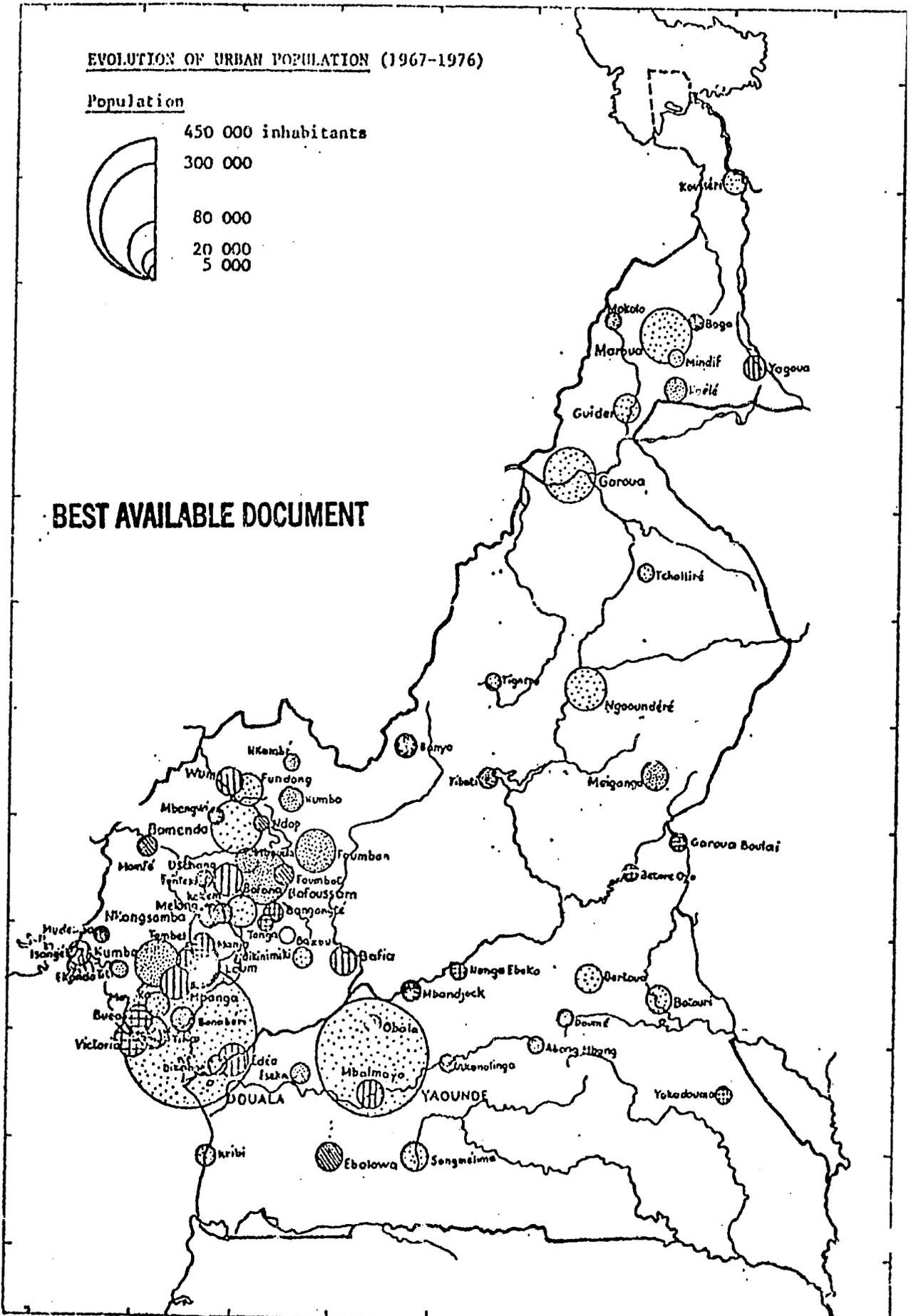


EVOLUTION OF URBAN POPULATION (1967-1976)

Population



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The following chart indicates the distribution of the rural population by type of agriculture:

PERCENTAGE OF RURAL POPULATION ENGAGED IN AGRICULTURE*

PROVINCE	PERCENTAGE OF POPULATION IN AGR.	NO. OF CATTLE HERDERS
North, Far North,	93	115,805
East Adamawa	83	619
Central South	65	268
Littoral	32	-
West	84	976
Northwest	72	3,691
Southwest	44	840
Cameroon	73	122,199

*Source: IFORD (Institute of Training and Demographic Research)
Population census for Cameroon 1976.

CAMEROON'S ECONOMY

Cameroon's economy has since 1975 been undergoing a rapid growth in terms of gross national product although in terms of structure there has been virtually no change for a long time. At current prices, GDP increased from CFAF 569.7 billion in 1975 to 1,112.2 billion in 1979 (see table below) with the agricultural component dropping from 34% to 32.3%. However, agriculture remains the largest sector followed by trade (16.5%), other services (12.8%), and industry (9.2%). The Gross Domestic Product grew at the rate of 4.7% a year during the period 1971-76 and at 8% during the 1977 to 1978 period.

Gross Domestic Product
by Branch of Economic Activity
1975-1979

(in CFA billion at current prices)

	<u>1975</u>	<u>1976</u>	<u>1977</u>	<u>1978</u>	<u>1979</u>	<u>----(in %)--</u>	
						<u>1975</u>	<u>1979</u>
Rural Sector	193.7	220.8	259.7	305.5	359.2	34.0	32.3
Mining	2.3	2.0	3.2	4.2	12.2	0.4	1.1
Industry	56.2	67.5	74.7	87.4	101.9	9.9	9.2
Electricity, gas, and water	5.7	6.7	10.2	11.7	14.3	1.0	1.3
Construction	21.6	28.6	42.2	46.6	58.0	3.8	5.2
Commerce	93.9	107.1	126.9	154.1	183.4	16.5	16.5
Transport and Communications	49.3	55.1	57.7	65.9	72.6	8.7	6.5
Public Administration	43.6	45.1	56.2	70.7	90.4	7.6	8.1
Other Services	81.0	87.0	111.6	139.2	142.1	14.2	12.8
Import Taxes	<u>22.4</u>	<u>32.9</u>	<u>43.1</u>	<u>54.6</u>	<u>78.1</u>	<u>3.9</u>	<u>7.0</u>
Gross Domestic Product	596.7	652.8	785.4	939.8	1112.2	100.0	100.0

Source: "Direction de la Statistique et de la Comptabilité Nationale" concerning basic data and the World Bank concerning sectorial distribution.

FOOD CROPS IN THE TRADITIONAL SECTOR

Given the diversity of climate, the types of soil, and the topography of Cameroon, a wide variety of food crops are produced. Most of these crops, produced on small family holdings of about two hectares, are consumed locally, but an increasing amount has begun to be exported to neighboring countries. To this effect, food producers are not affected by an export tax as with the major export cash crops. A map on page 13 shows the main food crops.

Cameroon has been virtually self-sufficient in food production despite the fact that food crops received only a little over 1/2 of one percent of the total public investment. This has been due primarily to the lack of enforced price ceiling for food crops sold in open air markets.

The major problems impeding the rapid expansion of food crop production are: 1) the lack of adequate storage facilities and transportation systems, 2) the lack of trained agriculture extension agents, and 3) the insufficient use of improved seeds and chemicals.

Although statistical sources for many crops in the agriculture sector are sometimes unreliable, and occasionally contradictory, the table on pages 14 and 15 show the production of the major food crops by province in the traditional sector.

FOOD CROPS IN THE MODERN SECTOR

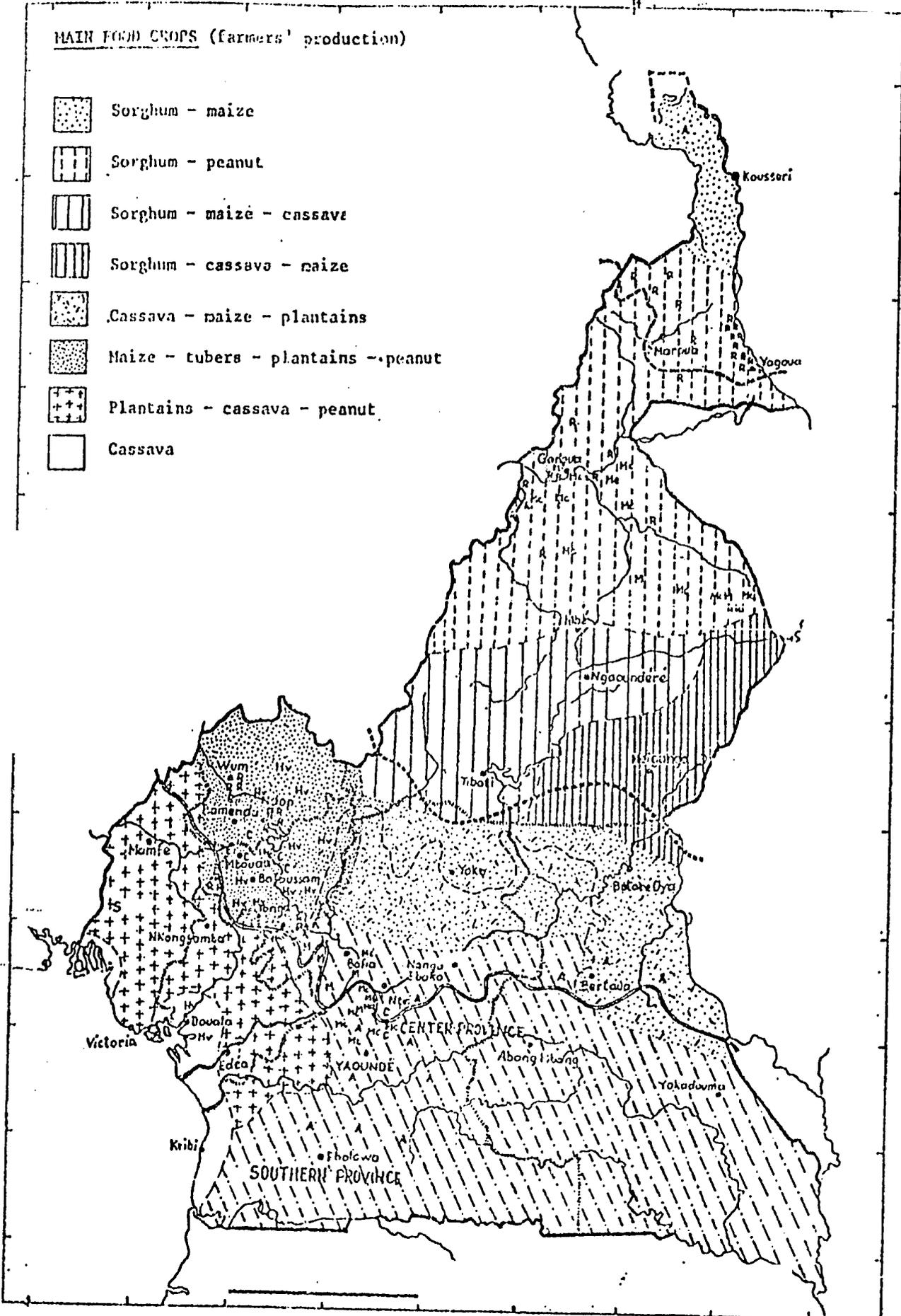
Within the modern sector food crops are produced on large plantations or estates. These crops include rice, sugar, maize, wheat, soybeans, bananas, and sorghum, and their production is generally managed by parastatals, development societies and corporations, and Regional Development Authorities.

Although these crops have performed more poorly than anticipated, the major problems are the result of a lack of emphasis on the sector until just recently. The total public expenditure for the agriculture sector as a whole was between 11 percent and 13.5 percent. Of this amount only about one-fourth has been spent on projects which benefit food crops.

The table that follows on pages 16 & 17 summarizes the production of these crops. Once again, these figures are not without contradiction, but generally can be taken with more confidence than those from the traditional sector.

MAIN FOOD CROPS (farmers' production)

-  Sorghum - maize
-  Sorghum - peanut
-  Sorghum - maize - cassava
-  Sorghum - cassava - maize
-  Cassava - maize - plantains
-  Maize - tubers - plantains - peanut
-  Plantains - cassava - peanut
-  Cassava



FOOD CROP PRODUCTION: TRADITIONAL SECTOR 1981-1982

FOOD CROP	Adamawa Province North Province Far North Province			North-West Province			Western Province			South-West Province		
	m. ton (thou)	ha (thou)	m. ton per ha	m. ton (thou)	ha (thou)	m. ton per ha	m. ton (thou)	ha (thou)	m. ton per ha	m. ton (thou)	ha (thou)	m. ton per ha
Bananas (plantains)	17.64	4.20	4.20	228.90	54.50	4.20	502.03	119.53	4.20	357.00	85.00	4.20
Macabo - Taro (coco yams)	20.20	7.20	2.80	160.05	160.03	1.00	227.41	133.77	1.70	115.20	72.00	1.60
Cassava (Manioc)	50.34	33.56	1.50	64.48	41.60	1.55	85.8	53.6	1.6	64.16	40.10	1.60
Table Bananas	5.58	2.05	2.72	139.68	37.80	3.70	191.43	61.75	3.20	141.41	42.85	3.30
Ignames	14.04	7.71	1.82	78.00	52.00	1.50	107.40	69.32	1.55	50.27	32.22	1.56
Maize	43.10	45.45	0.95	126.00	116.00	1.09	164.00	170.06	0.96	15.00	23.00	0.65
Millet & Sorghum	351.00	500.20	0.70	-	-	-	-	-	-	-	-	-
Sugar Cane	0.33	0.08	4.00	139.68	37.80	3.70	103.45	9.32	11.11	43.43	5.95	7.30
Peanuts	38.06	92.87	0.41	3.63	32.00	0.11	19.12	88.20	0.22	1.37	7.78	0.18
Beans	3.88	38.78	0.10	5.80	49.00	0.12	11.00	13.52	0.81	0.60	5.00	0.20
Rice	7.13	5.72	1.25	1.48	1.97	0.75	0.23	0.29	0.80	0.49	0.74	0.66

FOOD CROP PRODUCTION: TRADITIONAL SECTOR (cont.)

FOOD CROPS	Littoral Province			South Province Central Province			Eastern Province			CAMEROON		
	m. ton (thou)	ha (thou)	m. ton (thou)	m. ton (thou)	ha (thou)	m. ton (thou)	m. ton (thou)	ha (thou)	m. ton per ha	m. ton (thou)	ha (thou)	m. ton Per ha
Bananas (Plantain)	193.20	46.00	4.20	1.018.60	254.66	4.00	140.61	32.70	4.30	2,459 (1,026.00)	596.60	4.12
(coco yams) Macabo - Taro	67.20	48.00	1.40	167.66	119.76	1.40	61.84	44.17	1.40	819.56	584.93	1.40
Cassava (Manioc)	79.76	48.34	1.17	193.71	121.07	1.60	100.08	58.87	1.70	638.29 (1,011.00)	397.14 (263.00)	1.60 (3.80)
Table bananas	94.48	24.23	3.90	179.07	47.50	3.77	18.80	5.00	3.70	770.15 (79.00)	221.17	3.48
Igname	38.81	25.20	1.54	109.68	69.86	1.57	3.32	2.16	1.54	401.56	258.47	1.55
Maize	30.00	44.00	0.68	28.00	11.00	2.55	18.90	29.40	0.64	425.00	438.91	0.97
Millet & Sorghum	-	-	-	-	-	-	-	-	-	351.00	500.20	0.70
Sugar Cane	30.17	4.31	7.00	109.08	18.18	6.00	34.21	5.43	6.30	460.4	81.07	5.678
Peanuts	9.50	16.70	0.57	10.40	48.00	0.22	4.77	25.48	0.19	8.69	311.03	0.28
*Beans	1.43	13.00	0.11	0.87	8.70	0.10	0.03	0.02	0.20	23.61 (100.00)	128.16 (157.00)	0.18
Rice	-	-	-	0.57	1.00	0.57	0.22	0.40	0.54	10.11	10.12	0.10
*Sweet Potatoes										(135.00)	(39.00)	(3.46)
Potatoes										(60.00)	(25.00)	(2.40)
*Tomatoes										(50.00)	(10.00)	(5.00)
*Pineapples										(40.00)	-	-
*Onions										(15.00)	(6.00)	(2.50)
*Sesame										(10.00)	(30.00)	(0.30)

Source: Ministry of Agriculture, Statistical Services

* Where totals diverge significantly, or where no statistics are available from government sources, FAO production Yearbook, 1981, figures are shown in parenthesis ().

FOOD CROP	Littoral Province			South Province Central Province			Eastern Province			CAMEROON		
	m. ton (thou)	ha (thou)	m. ton Per ha	m. ton (thou)	ha (thou)	m. ton Per ha	m. ton (thou)	ha (thou)	m. ton Per ha	m. ton (thou)	ha (thou)	m. ton Per ha
Sugar (refined)	-	-	-	65.74	15.59	4.22	-	-	-	65.74	15.59	4.22
Table bananas	35.78	-	-	-	-	-	-	-	-	50.11	-	-
Rice	-	-	-	-	-	-	-	-	-	40.50	11.8	3.43
Sorghum	-	-	-	-	-	-	-	-	-	0.02	0.03	0.80
Maize	-	-	-	-	-	-	-	-	-	6.50	2.61	2.49
Wheat	-	-	-	-	-	-	-	-	-	0.90	0.63	1.47
Soybeans	-	-	-	-	-	-	-	-	-	0.044	0.14	0.30

Source: Ministry of Agriculture, Statistical Services

INDUSTRIAL CASH CROPS (from all sectors)

Industrial crops are crops which must undergo some additional processing before they can be used as food or fiber. In many cases these crops are well suited to plantation culture, and in Cameroon account for most agriculture exports.

Cocoa and coffee are almost exclusively grown on small farms in all provinces except the North. Arabica coffee is grown in the West and Northwest Highlands, and has recently made a comeback from a slump in production. Cocoa is grown mostly on small farms in the Central South, and with substantial government efforts for the eradication of black-pod disease and the rehabilitation or replacement of aged trees, production is on the increase.

Palm oil, rubber, tea, and tobacco are generally grown in the modern sector on large plantations. Cotton is grown exclusively in the North Province and has recently yielded well due to increased mechanization and use of fertilizers as well as effective extension services by the cotton development company, SODECOTON (Societe de Developpement du Coton au Cameroun).

The tables on pages 19 and 20 summarize the production of the Industrial Cash Crops from both the modern sector and the traditional sector.

LIVESTOCK PRODUCTION

Both modern and traditional methods of animal husbandry are practiced throughout Cameroon with various physical and economic factors determining the predominating husbandry found in each region. Cattle, horses, sheep, and goats generally predominate in the Northern regions, particularly on the Adamaoua Plateau, where ample grazing land is available. Pigs are raised primarily in the West Province, but also in the Southern region where animal feeds are more readily available.

The table on page 21 shows the distribution of livestock found in Cameroon. These figures are estimates and should be taken with a great deal of caution since sources vary considerably. In some cases, such as poultry, not all reports were submitted from all departments.

CASH CROPS	<u>Littoral Province</u>			<u>South Province Central Province</u>			<u>Eastern Province</u>			CAMEROON		
	m. ton (thou)	ha (thou)	m. ton Per ha	ha (thou)	m. ton (thou)	m. ton Per ha	m. ton (thou)	ha (thou)	m. ton Per ha	m. ton (thou)	ha (thou)	m. ton Per ha
Cocoa	5.58	24.76	0.23	78.22	268.50	0.29	6.50	53.49	0.12	118.35	425.76	0.28
Palm Oil	22.38	15.61	1.43	72.41	44.03	1.64	-	-	-	94.81	75.18	1.26
Coffee (Robusta)	31.20	69.18	0.45	4.65	20.32	0.23	8.16	32.18	0.25	84.21	215.13	0.39
Cotton	-	-	-	-	-	-	-	-	-	79.82	53.36	1.26
Coffee (Arabica)	-	-	-	-	-	-	-	-	-	25.07	192.00	0.13
*Rubber	2.97	3.42	0.87	-	-	-	-	-	-	11.26 (18.00)	14.23	0.79
Tea	-	-	-	-	-	-	-	-	-	2.29	-	-
*Tobacco	-	-	-	-	-	-	1.71	2.24	0.76	5.53 (3.00)	-	-

Sources: Ministry of Agriculture, Statistical Service

* Where total diverge significantly from government sources, FAO Production Yearbook, 1981 figures are shown in parenthesis ().

LIVESTOCK PRODUCTION 1980-1981

LIVESTOCK	<u>Adamawa Province</u> <u>Far North Prov.</u> <u>North Province</u>	<u>Northwest</u> <u>Province</u>	<u>Western</u> <u>Province</u>	<u>Southwest</u> <u>Province</u>	<u>Littoral</u> <u>Province</u>	<u>South Province</u> <u>Central Province</u>	<u>Eastern</u> <u>Province</u>	CAMEROON (TOTAL)
* Cattle	2,872,517	481,767	170,024	15,890	1,341	31,083	209,763	3,782,385 (3,284,000)
Sheep	906,719	379,824	168,768	101,600	4,564	144,288	52,650	1,761,413 (2,174,000)
Goats	1,035,708	254,939	341,954	175,500	9,012	148,152	62,590	2,027,855 (2,434,000)
Pigs	14,438	53,281	693,633	138,000	30,818	138,797	35,500	1,104,467 (1,257,000)
Rabbits		549	17,756	2,200	4,711	60	222	25,498
*Horses	10,748	8,087	684	700	341	-	168	20,746
Donkeys	32,165	661	118	-	-	-	625	33,569
* Chickens	565,810	1,513,000	2,042,420	1,333,000	523,482	536,563	278,963	6,793,238 (10,700,000)

Sources: Annual Report, 1980-81: Ministry of Livestock, Fisheries and Animal Industries

* Where totals diverge significantly from government sources, FAO Production Yearbook, 1981 figures are shown in parenthesis ().

FISHERIES

Fish harvests in Cameroon are derived from three sources - maritime fishing, inland fishing from lakes, rivers and streams, and inland fish farming.

Maritime fishing is executed in Cameroon's territorial waters which extend for 360 km along its coastline. The industrial catch is estimated at 23,000 metric tons from a modern fishing fleet of forty vessels, twenty-four of which are trawlers and sixteen of which are shrimpers. The estimated non-industrial catch is about 35,000 tons annually. It is highly unlikely that this fishery has the potential for expansion within its normal fishing zone. Studies have estimated this zone to have a potential of producing only 80,000 tons. Other problems associated with this fishery are industrial pollution from urban centers, oil slicks caused from off-shore oil exploitation and exploration, and monitoring of catches from non-industrial sea fishing.

Inland fishing is practiced extensively in all bodies of water in Cameroon. There are a number of traditional methods which persist and it is estimated that a catch of about 50,000 tons is harvested each year. The lack of modern fishing equipment as well as monitoring and management of this catch poses many problems.

Inland fish farming was first introduced to rural farmers during colonial times and was all but abandoned after independence. Fish culture has since been introduced by the U.S. Peace Corps and supported by a USAID project. The expansion of fish culture in the general sector has been hampered by ineffective extension and administrative problems.

POLITICAL CHARACTERISTICS AFFECTING THE RURAL SECTOR

Since Cameroon's independence in 1961, the political philosophies have remained virtually unchanged. This consistency is a result of two distinctive characteristics. First, is the highly centralized governmental structure. Second is the developmental themes established by Cameroon's former President, Ahmadou Ahidjo. Both of these characteristics are discussed below.

The Governmental Structure

At the top of the governmental structure is the Office of the Presidency which supervises the actions of all ministries, national offices, and delegations. Usually, upon consulting the appropriate organism, this office issues decrees.

Beneath the Presidency is the Office of Prime Minister which retains decision-making functions for all development loans undertaken by Cameroon. This office also plays a role in the price regulation process for Cameroon's industries.

The third line is the Ministry of Plan and Industry. This ministry directly supervises certain rural sector projects and national offices and has broad responsibilities in the area of pricing and credit allocation. It is this ministry through which all donors must negotiate and coordinate their assistance program and through which all private sector investment proposals must pass.

Next in line at the central control level are the nineteen other ministries which are responsible for providing inputs into the preparations of national plans and subsequently for carrying out the plans which receive approval.

Although all these ministries propose inputs that ultimately affect the rural sector, the activities of the Ministry of Agriculture and the Ministry of Livestock, Fisheries and Animal Industries are of prime importance to the sector. These ministries are responsible for infrastructural support of extension agents, monitoring development projects in their respective areas, making recommendations as to policy and regulations, and implementing national directives.

Other ministries are also of great importance to the rural sector. The Ministry of Finance advises in the determination of the flow of finances, while the Ministry of Health determines the availability of health care to rural areas. The Ministry of Education supports rural sector schools and the Ministry of Equipment supports the construction and maintenance of roads.

Developmental Themes

Since independence several developmental themes inherent in Cameroon's political structure have emerged. The themes are carried out just as strongly today as they were twenty-two years ago. The first of these is the recognition that no one region or ethnic group be allowed to profit too much at the expense of another. From decisions on the locations of industrial projects to allocations of government posts, great care is taken to preserve a regional and ethnic balance. Many times these decisions are at the cost of economic growth.

A second theme is that of the promotion of order, and is carried out by means of a strong, centralized government structure, a powerful, well-organized party system, security forces, governmental regulated cooperatives and transport systems, and traditional chiefs.

A third element is that of mixed economic control, most commonly referred to as "planned liberalism". This concept gives private enterprise a considerable amount of latitude and incentives within a framework strictly defined by the Government of the United Republic of Cameroon (GURC), and has resulted in the present-day structure of the agro-industries (discussed below).

Lastly, is Cameroon's cautious approach to economic policy changes. All proposals are carefully studied before any decisions are made to assure that no dramatic economic or political errors are made.

NATIONAL OFFICES SERVING THE RURAL SECTOR

Several National Offices have certain responsibilities for executing governmental policies, and are of prime importance to the rural sector. These offices are FONADER, ONCPB, SNI and DGRST and are discussed below.

FONADER (National Fund for Rural Development) was initiated to promote economic and social development in the rural areas through credit and investment capital to farmers, credit bodies, cooperatives, etc. Problems center around FONADER's reliance on other organizations such as extension services and cooperatives to implement and monitor proposed activities and on the limited availability of funds, which has led to a slow rate of recovery. These problems are being acted upon by extending branches to provincial capitals so that activities can be more carefully supervised, and by the utilization of oil revenues to close the gap on its rate of recovery.

ONCPB (National Office for the Marketing of Basic Commodities) is responsible for implementing price and marketing regulations for the major export crops. Among these crops are coffee, cocoa, cotton, peanuts, and palm kernels. This office also holds a monopoly for selling these crops on the international markets.

DGRST (General Delegation for Scientific and Technical Research) is responsible for carrying out research and development of governmental policy through two of its three branch offices, the IRA (Institute for Agricultural Research), and the IRZ (Institute for Animal Research).

SNI (Society for National Investment) was formed as a combination holding company/investment bank created in response to low interest rates offered by the government in order to attract private investors. It can either purchase shares of an enterprise or make loans to this company, and holds shares in many of Cameroon's agro-industries.

AGRICULTURAL DEVELOPMENT ORGANIZATIONS

Agro-Industries of Cameroon

The Agro-industries of Cameroon are best exemplified by a network of parastatal companies, development societies, cooperatives, and regional development authorities. In actuality, they are area specific and crop specific entities which operate at the ground level. Theoretically, they are autonomous, but in reality operate within tightly defined guidelines and most major decisions must be referred through a cumbersome, highly centralized governmental structure. The major agro-industries are listed in the table on page 25.

MAJOR AGRO-INDUSTRIES OF CAMEROON

Organization	Product	Location	Province	Annual Capacity
SIC-COCA	Cocoa	Douala	Littoral	35,000 MT
CHOCOCAM	Cocoa, Peanuts	Douala	Littoral	250 MT
UDCAO	Coffee	Bafoussam	West	12,000 MT
ZAPI-EST	Coffee	Belabo	East	-
SODECOTON	Cotton, peanut oil	Garoua	North	80,000 MT
		Maroua		1,000,000 Liters
		Kaélé		
CICAM	Cotton,	Garoua	North	45 MT
	Textiles	Douala	Littoral	
CDC	Palm oil & kernels	Mondoni	Southwest	24,000 MT
		Idenou	Southwest	
	Rubber	Tiko	Southwest	12,000 MT
		Mukonje	Southwest	
		Missellele	Southwest	
		Meanja	Southwest	
	Tea	Tola	Southwest	425 ha
		Ndu	Northwest	550 ha
		Djuttitsa	West	80 ha
	Pepper	Tombel	Southwest	
		Mabeta	Southwest	
		Ekona	Southwest	
		Mongo	Southwest	60 MT
		Menja	Southwest	
PALMOL	Palm oil & kernels	M'Pisa	Southwest	19,000 MT
		Lobe	Southwest	
	Rubber	?	Littoral	
SAFACAM	Palm oil & kernels	Dizangue	Littoral	20 MT/HR
	Rubber		Littoral	2,000 MT
SOCAPALM	Palm oil & kernels	Mbongo	Littoral	20 MT/HR
		Dibombari	Littoral	20 MT/HR
		Edea	Littoral	9 MT/HR
		Eseka	Central-South	9 MT/HR
SPES	Palm oil & kernels	(under construction now utilizes SAFACAM refinery at Dizangue)		
HEVECAM	Rubber	?	Littoral	4,000 MT
SOSUCAM	Sugar	Mbandjock	Central-South	30,000 MT
CAMÉVIX	Sugar	Nboteng	Central-South	50,000 MT
SABC	Beer	Douala-Koumassi	Littoral	800,000 HL
		Garoua	North	120,000 HL
		Yaounde	Central-South	660,000 HL
		Bafoussam	West	450,000 HL
GUINNESS	Beer	Douala	Littoral	500,000 HL
UCB	Beer	Douala	Littoral	500,000 HL
J. Bastos	Cigarettes	Yaounde	Central-South	750 MT
ECH	Wheat	Douala	Littoral	75,000 MT
SOEBLE	Wheat,	?	North	1 MT
	Maize			6.5 MT
SOCAFRUITS	Pineapples	Douala	Littoral	30,000 MT
SOARY	Rice	Yagoua	North	30,000 MT
ENDERIH	Rice	Mbo	West	3,000 MT
UNVDA	Rice	Ndop	Northwest	3,000 MT
WADA	Rice	Wum	Northwest	1,200 MT
STPC	Tanning	Ngaoundere	North	1,550 MT
COTONEC	Fisheries	Douala	Littoral	7,000 MT
PECAM	Fisheries	Douala	Littoral	4,200 MT
CREAM	Fisheries	Douala	Littoral	4,100 MT
COPEMAR	Fisheries	Douala	Littoral	2,100 MT
SOPAC	Fisheries	Douala	Littoral	1,300 MT
AMASULA	Fisheries	Douala	Littoral	100 MT

There was a recent element proposed in the Fifth Five-Year Plan to decentralize authority by the creation of Regional Development Authorities. These autonomous authorities have been established in three homogeneous regions of the country - the Northern region, the Western region and the Eastern region. Their task is "to supervise the establishment of major national investments". These capital investments are actually specific projects assigned to each authority. Each authority is responsible for drawing up plans relating to infrastructural development within its area. Unfortunately, these authorities fall short of successfully releasing strong central control, and there is no indication that these authorities will direct the activities of the agro-industries. At best, they will merely lay emphasis on their own region.

By definition, an agro-industry is any activity other than transportation, storage, or marketing that adds value to a product from the agricultural sector, including fishing and forestry activities. These activities include the following: washing, cleaning, drying, freezing, grading, roasting, shelling, grinding, milling, brewing, packaging, refining, or otherwise transforming any agricultural product.

The agro-industries in Cameroon are dominated by a few large firms. These are forty-four agro-industrial firms, twenty of which together produce approximately two-thirds of all agro-industrial output and account for an equal proportion of the total labor force of all agro-industrial enterprises.

The agro-industrial enterprises are concentrated on the coastal seaboard in and around Douala. The leading firms are overwhelmingly foreign or state owned. The proportion of expatriate executives managing the firms has declined in recent years but still remains high.

Since independence, agro-industries have maintained a constant 5.5-7.0% share of the GDP and have contributed to making Cameroon largely self-sufficient in food stuffs and an exporter of cash crops. Cameroon's agro-industries, however, have been below average in comparison with 62 middle income countries. In the manufacturing sector - two-thirds of which consists of agro-industries - Cameroon's average annual growth rate was 5.2% between 1970 and 1978, as compared to 6.8% for the middle income countries.

Exported products usually receive only the minimum amount of processing required to get them safely to their final destination. Products for the domestic market, on the other hand, are frequently processed for final consumption. They have gone through more stages of processing than those for export.

Thus far, the great majority of agro-industries have been established because of their import substituting characteristics. Fewer than 3 percent of total exports are of agro-industrial origin. Moreover, half the agro-industrial exports go to the other members of the Central African Economic Customs Union (UDEAC).

Cameroon's liberal Industrial Code of Incentives requires that government officials examine each new applicant on a case by case basis. Most attention is given to larger investment proposals, and this has the following adverse effects:

1. It encourages a concentration on large scale firms.
2. It tends to encourage foreign rather than indigenous investment.
3. It discourages the growth of a diversified industrial structure.

Revision of this code is clearly stated in Cameroon's Fifth Five-Year Plan, but with typical caution, Cameroon has not made any dramatic change in policy. However, some changes are gradually appearing.

Government pricing policies can be deleterious to agro-industry. There are examples of the government establishing the buying or selling price of both inputs and the outputs of agro-industry at levels that have resulted in serious financial losses to agro-industrial enterprises.

Many of the large Cameroonian agro-industrial enterprises are operating at a loss. There are many reasons for this and they vary from enterprise to enterprise. However, they should not all be traced to inefficiencies. Many of the firms are fairly new, and have been established under the 3rd and 4th Five-Year Plans. They required enormous initial outlays and in some instances will have to wait for nearly a decade before returns start coming in at levels that will enable them to repay the outstanding debt. It is possible that a reasonable proportion of firms now operating at a loss will have positive net profits at some point in the future.

Three activities have been identified by USAID as specially promising for an integrated approach. These activities are: 1) milk and dairy products, 2) tomato paste, and 3) corn production.

DEVELOPMENTAL ISSUES IN THE RURAL SECTOR

Marketing and Price Controls

The GURC has actively used produced price controls to significantly influence the behavior, performance, and relative profitability of various cash crops in order to strengthen the economy's base, meet the food needs of urban population, and restrain the rural exodus.

At the beginning of each agricultural campaign, at the advice of the National Office for the Marketing of Basic Commodities (ONCPB), producer prices for coffee, cocoa, cotton, peanuts, and palm kernels are set by Presidential decree. The prices have generally been set at a certain margin above production costs, but below world prices. The objective of these price controls is to let the ONCPB act as a buffer to changes in world prices.

In recent years world prices fell drastically and the ONCPB's reserve fund of CFAF 25 billion as of June, 1980, was nearly depleted by December 1980. This was partly due to substantial trading losses on cocoa and coffee, and timber declined from 74 percent of the total exports in 1977-78 to 32 percent in 1980-81. Cotton, aluminum, rubber, palm oil, and kernels and primary manufacturing goods accounted for another 16 percent of the total exports. Oil rose from 28 percent in 1977-78 to 52 percent in 1980-81.

The difference between the price paid to the producer and that received on the international market is put into a stabilization and reserve fund for each crop. Investments have also been made in warehouses and other agricultural organizations such as HEVECAM (Rubber Development Company of Cameroon) and SEMRY (Company for the Expansion and Modernization of Rice at Yagoua). Part of the surpluses are returned to farmers indirectly in the form of subsidies and grants to agricultural credit institutions, development organizations, research organizations, and cooperatives.

Large sums have also been contributed to the National Budget (nearly one-fourth in FY 1981), and consequently led to the charge that the export crop farmers are financing the general development rather than rural development. Furthermore, there is a growing consensus that raising producer prices to world price levels and reducing export taxes might help to lessen the income level gap between the rural and urban sectors.

Transportation and its Effect on Markets

The lack of an efficient transportation network has not kept pace with the activities in the other economic sectors and has hampered the ability to effectively distribute agricultural commodities to market. The major limiting factor to the rapid expansion of food production is the lack of all-weather roads. During the 1970's investments were concentrated on airports, the port of Douala, and the Trans-Cameroon Railway. Of Cameroon's 28,000 km of roads only about 7 percent are paved, and only 900 km were newly constructed during the Fourth Five-Year Plan. Most roads are impassable during the rainy season and require extensive maintenance during the dry season.

The GURC has identified the road and bridge construction as a major priority in the Fifth Five-Year Plan and has budgeted fifteen percent of its investment budget towards this effort. Nonetheless, this will address no more than small proportion of the requirements, and the inadequate road transport network will remain a detriment to agricultural development for years to come.

SUBSIDIZED FARMING INPUTS

In order to encourage small farmers to adopt modern farming methods the GURC has subsidized fertilizers, insecticides, sprayers, and other farming inputs. This program was first begun in 1966 by the FAO and was continued by the Government in 1973.

The overall problem associated with these subsidies is that it was not determined in advance when the subsidies would have achieved their objective. Consequently, production has not been able to cover input costs, and is exerting a severe financial strain on the government budget.

Some of the problems associated with these subsidies have been with the supply and distribution mechanism. Deliveries are sometimes late, the costs of distribution are high, and there is a lack of sizeable demand due to small scale operations. Extension services are also inadequate to familiarize farmers with the efficient use of inputs.

The GURC has recognized these problems with input subsidies, but calls for a gradual elimination "that fosters output through prices and bonuses". They do, however, plan to continue subsidies for the present. Recommendations for strategies on how Cameroon can eliminate the problems of input subsidies have been studied by USAID. However, the report is still awaiting publication.

FOOD SELF-SUFFICIENCY, IMPORTS, EXPORTS

A major objective in Cameroon's Fifth Five-Year Plan is to maintain self-sufficiency in foodstuffs to the year 2000. In many cases this strategy may not be the most productive use of the land as many crops could produce significant surpluses of food crops for export. This production could also aid in feeding a rapidly-growing urban population more efficiently. The table on page 31 shows Cameroon's international trade in livestock and agriculture. Generally speaking, the imports constitute consumer demands that are not satisfied by domestic production. Many of these imports such as potatoes, corn, milk, and others could help satisfy this demand by being produced in Cameroon with more efficient land use.

In other cases, produce such as rice, for example, could be produced on an industrial scale and exported to neighboring countries. Imported rice could then meet domestic demands more efficiently and at a much lower cost.

CAMEROON'S DEVELOPMENT STRATEGY

Cameroon's general development strategies have been outlined in successive Five-Year Plans. The current Fifth Five-Year Plan (1981-86) is the most ambitious plan Cameroon has yet undertaken. Specific objectives have been set for the year 2000 including universal health for all, self-sufficiency in food production, management and technical training, and effective balance between rural and urban populations, and a more just income distribution.

INTERNATIONAL TRADE IN LIVESTOCK AND AGRICULTURAL PRODUCTS, 1981

Products	Import Value (Thou. U.S. Dollars)	Export Value (Thou. U.S. Dollars)
Cattle	13,000	1,661
Sheep and goats	38	46
Pigs	-	-
Beef, fresh and frozen	38	-
Poultry (fresh)	720	-
Bacon and ham	120	-
Milk (fresh, condensed, dry)	7,829	-
Butter	3,187	-
Chocolate and chocolate products	320	4,878
Wheat and flour equivalent	20,025	-
Rice	3,531	-1,700
Other cereals	2,591	120
Malt	20,724	-
Potatoes	18	-
Dry onions	800	-
Hops	830	-
Oranges	47	-
Bananas	-	3,397
Apples	660	-
Sugar	-	-
Coffee	-	189,865
Cocoa beans	-	145,756
Cocoa powder	-	10,082
Cocoa paste	-	10,100
Cocoa butter	-	19,660
Tea	-	829
Pepper	-	57
Bran and milling products	-	-
Oilseed cake, meal	-	1,308
Margarine	1,280	-
Wine	5,799	-
Beer	5,799	-
Tobacco	6,264	2,354
Palm nut kernels	-	667
Rubber	-	4,064
Cotton lint	-	41,203
Jute	1,900	-
Groundnut	40	-
Linseed oil	40	-
Palm oil	-	2,345
Tractors	25,632	5,460
Fertilizer	797	3
Manufactured fertilizer	13,642	-
Pesticides	28,834	655
Fish and fish products	7,477	3,972
Forestry products	11,346	133,653
Total (in U.S. dollars)	\$167,639,000	\$283,305,000

Within the rural sector seven priorities have been identified as areas for concentration.

First, is the establishment of better relations between rural farmers and administrative services. In order to accomplish this, officials must convince farmers that there is a future in agriculture. It recognizes that farmers today are more informed and economically motivated, and as such they can be expected to participate more directly in the development process.

The second priority has to do with decentralization of the development process, and proposes the establishment of semi-autonomous development companies in respective areas.

The third priority is the improvement of living conditions in rural areas, and recognizes some 6000 villages with needs for basic health, education, water, and improved infrastructure. The objective of this priority is to restrain the rural exodus.

The fourth priority focuses on the consideration of the farmer's welfare in pricing policies. It is recognized that farmers react vigorously to produce more when they are paid more.

Priority five involves the reinforcing of extension services with refresher courses for rural workers. The GURC realizes the important role extension service plays in communication of technologies to farmers.

Priority six calls for the improvement of farmer productivity through research efforts, information availability, credit consideration, and amended land tenure laws.

The seventh priority addresses the desire to improve upon production, processing, and marketing of agricultural resources. The plan recognizes the need for the increase of efficiency of operations and quality considerations in pricing policies. It also plans to explore the possibilities of promoting private investment in this area.

USAID STRATEGY AND ITS RELATIONSHIP TO THE FIFTH FIVE-YEAR PLAN

The broad objectives of USAID is to assist Cameroon in increasing food production. In order to accomplish this, it will be necessary for Cameroon to:

- Develop improved agricultural varieties and agronomic techniques for different ecological zones,
- Provide agricultural extension services, supply market information, and strengthen other farmer service agencies to reach the majority of Cameroon farmers.

- Make available inputs such as improved seeds, fertilizer, insecticides, and credit,
- Increase the educational levels of rural producers so they can make better use of available resources through improved farming systems,
- Raise health levels to increase the amount of human energy devoted to production, and,
- Improve infrastructure such as roads, storage facilities and markets.

The ministerially affiliated institutions such as the university system and the research organizations enjoy perhaps the greatest degree of independence. It is these institutions that are responsible for furnishing the trained personnel which will research, manage, train, and develop the rural sector.

USAID will concentrate its efforts within the infrastructure of these institutions so as to fully develop the human resources potential which can help both directly and indirectly, to increase food production. USAID has found that village level projects usually have not achieved the desired results because GURC field staff are often insufficiently trained and lacking in numbers.

The largest single effort over the next decade will be to assist the Ministry of Agriculture in upgrading its staff. For this undertaking, USAID has initially chosen the University Center for Agriculture at Dschang. Graduates from this institution will collect and analyze data, plan and implement projects through research efforts, train necessary technicians and extension agents, and manage the public agencies and private enterprises charged with providing assistance, employment, inputs, and marketing services.

Later, depending on the relative success of preliminary activities, USAID will assist in improvement of the mid-level agricultural institutions which are crucial to the preparation of extension materials and training of extension agents.

Through development of the institutions needed to carry on research and development activities, USAID will assist the GURC in the development of new varieties of grains and cereals which will be adaptable to each ecological zone. There will also be a technology transfer element built into these research programs which will provide technological packages and train extension agents in their use.

In this regard, USAID has developed the National Cereals Research and Extension Project which is aimed at developing an institutional capacity to provide high quality seeds and transfer the results to farmers. Another project, the Seed Multiplication Project, will establish an institutional system for the multiplication and distribution of improved peanuts, sorghum, millet, and maize.

The strategies mentioned above closely complement the policies proposed in the Fifth Five-Year Plan. The new plan emphasizes the importance of increased food production and the role of the rural sector in the development process. It further recognizes the importance of the development of its most important resource - its people. The plan's long-term strategy places great emphasis on the reform of the primary education system to incorporate basic skills in nutrition, health, sanitation, etc. In addition, it calls for technical education development and continuing training so that Cameroon may meet its needs for future management.

In order to carry out its objectives on increased food production, Cameroon has created a National Food Plan which closely coincides with USAID's policies.

The food plan calls for:

- the introduction of food crop components in all development projects,
- distribution of improved seeds,
- price stabilization for most important food crops,
- the creation of adequate storage facilities,
- easing access to credit for food producers near urban areas,
- encouragement of resettlement by the opening up of new zones by rural youths,
- intensification of food crop research, and
- intensive study of domestic and export commercialization.

To execute these goals food production targets have been set for many crops of importance to Cameroon's rural economy for the year 2000.

USAID-FUNDED AGRICULTURAL AND RURAL DEVELOPMENT PROJECTS IN

CAMEROON

Agriculture Management and Planning

\$4.2 Million Grant. 1979-85

This project is designed to improve the capacities of the Ministry of Agriculture in project preparation, monitoring and evaluation, economic and agricultural sector analysis, and to install a permanent capability to conduct annual surveys to provide objectivity-based data on the agricultural sector. The cooperating Host Government Agency is the Division of Studies and Projects within the Ministry of Agriculture. The U.S. Department of Agriculture provides the advisors for this project and they include Dr. John Schamper, Agriculture Economist, Team Leader; William Kelly, Senior Statistician;

Dr. John Litschauer, Agriculture Statistician, and Ms. Sarah Lynch, Agriculture Economist. All advisors are located in Yaounde. The project has six Cameroonians studying for advanced degrees in the U.S. The USAID officers backstopping this project include William F. Litwiller and Marcel Ngue.

North Cameroon Livestock and Agricultural Development

\$6.2 Million Grant. 1978-85

This pilot project is to improve the management, production and marketing of livestock in Northern Cameroon through the introduction of controlled herding and rangeland management and the association of improved supplementary storage. The Ministry of Livestock, Fisheries and Animal Industries is the cooperating Host Government organization. Experience Incorporated is providing the advisors for this project that include Calvin Burgett, Team Leader, Extension Specialist; Thomas Cahalan, Agronomist; Linda Cleboski, Range Management; Philip Childs, Agriculture Engineer; and Ralph Bogrowski, Heavy Equipment Specialist. All advisors are located at Mindif. The project has two Cameroonians studying Range Management in the U.S. This project is backstopped by Christopher Phelps.

Higher Agricultural Education

\$43 Million (16.7 Million Grant - 26.3 Million Loan) 1982-88

While managed by the Human Resources Development Office of USAID and housed in the Ministry of Education, this project is of great interest to the agricultural sector. This project is designed to assist the GURC in building a first-class agricultural university based on the U.S. Land Grant model. As such, it is expected to be the training ground for future Cameroonian agriculturalists of all types. The University of Florida is supplying three Professors for this project which is located in Dschang. They are Dr. Joseph Busby, Chief of Party; Dr. William Prichett, Research and Extension Specialist; and Dr. Daniel Spinks. This project is backstopped by USAID's Richard Norton.

Small Farmer Fish Production

\$858 Thousand Grant 1980-84

The purpose of the project is to increase the productivity of fish ponds thereby increasing the availability of fish protein by further increasing Cameroon's capabilities in the area of inland fisheries. USAID is cooperating with the Department of Fisheries under the Ministry of Livestock, Fisheries and Animal Industries.

Mr. Luther Tucker Jr., Fisheries Coordinator, is stationed in Bamenda and is assisting the Department of Fisheries by expanding aquaculture extension activities and increasing fingerling production of fish hatcheries. Two participants are receiving training in aquaculture planning and will be responsible for inland fisheries development upon their return from the U.S.. The USAID Project Officer backstopping this project is Gary W. Bittner.

North Cameroon Seed Multiplication Phase II

\$13.6 Million (\$7.9 Million Grant - \$5.6 Million Loan) 1982-88

The purpose of this project is to assist the Government of Cameroon in further developing the institutional capacity of Project Semencier to produce adequate quantities of improved peanut, corn, sorghum and millet seed for distribution to farmers. USAID is cooperating with the Food Development Authority (MIDEVIV) and the Institute of Agronomic Research (IRA).

To further improve the peanut development program, Dr. Tim Shilling, Peanut Geneticist, is working with IRA in Maroua. Development Assistance Corporation (DAC) is providing training of short and long-term technical advisors to further develop the institutional capacity of Project Semencier. DAC has placed Dr. Tito Beca, Agronomist and Mr. Gilles Tousignant, Agriculture Machinery Advisor in Garoua to advise the staff of Project Semencier on agronomic and mechanical problems. The USAID Project Officer backstopping this project is Gary W. Bittner.

National Cereals Research and Extension Project

\$7.7 Million Grant 1979-85

This project is designed to increase food production through developing the institutional capacity of the Cameroon Institute of Agronomic Research (IRA) to provide high quality research on maize, rice, sorghum and millet, and to develop efficient linkages to facilitate extension of the research results to farmers. This project is being implemented through a contract with the International Institute for Tropical Agriculture (IITA) in Ibadan, Nigeria.

The project employs nine technical advisors and an administrative officer:

Dr. Emmanuel Atayi	Chief of Party and Agricultural Economist	Yaounde
Mr. Toby Chamberlain	Administrative Officer	Yaounde
Dr. Jay Chung	Maize Breeder	Yaounde
Dr. Leslie Everett	Maize Breeder	Bamenda
Dr. D. Janakiram	Rice Breeder	Dschang
Dr. Animesh Roy	Rice Agronomist	Dschang
Dr. J. Kikafunda-Twine	Maize Agronomist	Bamenda
Mr. Dermot McHugh	Extension Agronomist	Bamenda
Dr. Henry Tallyrand	Maize Agronomist	Garoua
Dr. Om Dangi	Sorghum Breeder	Maroua

The project has six Cameroonians in the United States studying for advance degrees. Abdel M. Moustafa is the Project Officer backstopping this effort.

Semi-Arid Food Grains Research and Development (SAFGRAD)

The project purposes are: 1) to test adaptation of experimental varieties of SAFGRAD crops (sorghum, millet, cowpeas) to Northern Cameroon, 2) to produce and maintain stocks of pure seed of promising varieties for ongoing experimentation and eventual multiplication and, 3) to promote the use of adapted varieties and successful cultural practices on the farm level through the extension system. Field trials are conducted at research facilities and in farmer's fields. Preference testing of grain type and consumability of varieties are tested at the farmer levels. The project is regional, headquartered in Upper Volta and being implemented in collaboration with the Institute of Agronomic Research (IRA). The project has an accelerated crop production officer (ACPO) Mr. Owen Gwathmey, stationed in Maroua, Northern Cameroon. The Project Officer is Abdel M. Moustafa.

Collaborative Research Support Program (Bean/Cowpea CRSP)

Project purposes are to develop methods for optimizing yields and quality of cowpeas through a collaborative research and training program in cowpea pest management. The project includes Cameroonian and U.S. scientists who identify key insect pests, develop strategies for pest management, and train Cameroonian students and technicians in institutional building.

The project is centrally funded and is implemented in collaboration with the University of Georgia and the Institute of Agricultural Research (IRA). The project employs an Entomologist, Dr. Moffi Ta'ama, stationed in IRA-Maroua. The Project Officer is Abdel M. Moustafa.

Community Forestation Project

\$600 Thousand Grant 1982-85

This project is designed to halt and eventually reverse deforestation and environmental degradation in North Cameroon by the establishment of programs in community forestation and agro-forestry extension. Villages will receive seedlings to establish woodlots, wind breaks and live fencing in conjunction with an extension and education program implemented by the National Forestry Office (ONAREF) and the Department of Community Development. These programs will focus on resource conservation and formation of village committees responsible for coordinating and monitoring reforestation efforts. This project is staffed by CARE and Mr. Gabe Tucker is the Forestry Advisor located in Mokolo. There are three Peace Corps Volunteers who are also cooperating with the effort. The Project Officer is Ronald Ruybal.

Regional Food Crop Protection Project

\$1.6 Million Grant 1976-84

The project is designed to introduce Integrated Pest Management (IPM) techniques and concepts to control food crop pest populations at economically significant levels with a minimum of environmental disruption. The project

works with two elements within the Ministry of Agriculture: the Sub-Directorate of Crop Protection for extension demonstrations and farmer implementation on food crop protection, and the Regional Training Center for Plant Protection (CREEPHY) which has the responsibility of training Ministry of Agriculture personnel on crop protection. In addition, the project has a research component with the Institute of Agricultural Research for the development of IPM packages. All three components are coordinated with the Direction of Agriculture. The project is being redesigned to strengthen the capability of the Crop Protection Service and to extend IPM through a pilot program focused on maize, cowpeas, and cocoyams. The Project Officer is Ronald Ruybal.

Credit Union Development

\$1.6 Million Grant 1981-86

The Credit Union Development Project is designed to strengthen Cameroon's national and regional credit union structures so that they become financially self-sufficient and technically able to provide essential services required by their affiliated credit unions. The project goal is to create an expanding network of credit unions which have the financial and technical capabilities sufficient to provide required savings, credit, and related financial services to an increasing membership. The project is being implemented through an operational program grant with the Cameroon Cooperative Credit Union League (CamCCUL). The Credit Union National Association of the World Council of Credit Unions (CUNA/WOCCU) is providing three long-term technicians including Kenneth Kerkhoff, Team Leader and Management Specialist, John Caracciolo, Small Farmer Production Credit Specialist, and a training advisor whose recruitment is in process. Other organizations also participating in the project are: The Africa Cooperative Savings and Credit Association (ACOSCA), The Konrad Adenauer Foundation (KAF), the Dutch Volunteers and the U.S. Peace Corps. This project is backstopped by Marcel Ngue.

USAID/Yaounde also has responsibility for the USAID programs in the Republics of Equatorial Guinea and Central Africa.

Equatorial Guinea Agriculture Development

\$2.0 Million Grant 1981-85

Equatorial Guinea regressed from a prosperous Spanish colony to an economic disaster under the treacherous rule of a dictator following independence. The coup d'etat in 1979 established a new government which is trying to revive the country's economy. The E.G. Agriculture Development project is designed to assist in this effort by providing some needed inputs to cooperatives involved in the coffee and cocoa cash crop sector, and by providing inputs and technical assistance to revive an abandoned commercial poultry complex ten kilometers from the capital, Malabo. The poultry component was also to provide extension services to small farmers, to assist in the creation of small commercial flocks and to augment the poultry center production. An evaluation in August, 1983, confirmed that the unavailability of locally produced components of poultry feeds and serious foreign exchange problems made small commercial flocks impossible for the near future. Meanwhile, the project is proceeding to produce rustic birds in an attempt to substantially increase

the island's population of this type of bird. International Human Assistance Programs is providing technical assistance through Mr. Tom Wetsel, a poultry advisor stationed in Malabo. The cooperative component ran into serious difficulty when it was realized the needs of the cooperatives were much more complex than the provision of a series on inputs. This activity is being folded into a concurrent project started in September, 1983, designed to address the problems of cooperatives.

Equatorial Guinea Cooperative Development

\$3.0 Million Grant 1983-86

Direct assistance to the coffee and cocoa cooperatives through a cooperative agreement with the Cooperative League of the U.S.A. will assist the cooperatives in achieving administrative and associative viability. While the project will begin working with a limited number of cooperatives, it is hoped that success in project implementation will lead to future project phases and a wider participation of cooperatives. The project will be conducted in three parts. Part I will establish Cooperative Service Centers and create a transportation system to facilitate the provision of inputs and the transport of produce. Part II will be intensive training in cooperative concepts, organization, administration, and cooperative and on-farm management. The preparation in Parts I and II will lead to a credit program in Part III. The project is designed with great flexibility providing continuous review and allowing changes in implementation emphasis and direction as the project evolves. The USAID Assistant Agriculture Development Officer, Larry Dominessy, is backstopping the projects in Equatorial Guinea.

Central African Republic Rural Development

\$1.0 Million Grant 1982-85

The rural Development Project is the first USAID project in CAR since the termination of USAID presence following the abuses of the Bokassa dictatorship. The project is designed to assist the GOCAR in three small sectors where activities exist but need to be strengthened. Two rice production centers that were created under a Taiwanese development project and abandoned by the Taiwanese after CAR recognition of mainland China are receiving inputs and management assistance. Small farmer fish culture is being expanded and small farmer production of honey and beeswax is being revived. Although the project is being implemented by the GOCAR with the technical assistance and administrative support of Mr. Tim Romocki, the Peace Corps is a partner and is providing eleven Peace Corps Volunteers to assist in the implementation of field activities.

Central African Republic Post Harvest Food Systems Project

This project is scheduled to begin in FY 1984 and will address a major constraint to increasing agricultural productivity: inadequate postharvest food systems. The project will be located in the two prefectures of Ouham and Ouham-Pende in northwestern CAR. It will follow some initiatives

begun under a small FAO pilot project and benefit from some lessons learned from this activity. The project will be implemented by a PVO through an Operational Program Grant. Larry Dominessy is backstopping the projects in Central African Republic.

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