

PN-ABR-010
86881

REPUBLIQUE DU CAMEROUN
Paix - Travail - Patrie

MINISTERE DE L'AGRICULTURE

REPUBLIC OF CAMEROON
Peace - Work - Fatherland

MINISTRY OF AGRICULTURE

CAMEROON
AGRICULTURAL SECTOR
OVERVIEW

**Prepared for the Agricultural and Rural Development Office
USAID Cameroon**

by

David Shapiro, Eric Tollens and Peter Wyeth

December 1992

Cameroon Agricultural Policy and Planning Project

CAMEROON AGRICULTURAL SECTOR OVERVIEW

Prepared for the Agricultural and Rural Development Office
USAID Cameroon

by

David Shapiro, Eric Tollens and Peter Wyeth

December, 1992

David Shapiro: Associate Professor of Economics, Pennsylvania State University
Eric Tollens: Professor of Agricultural Economics, Catholic University of Leuven, Belgium
Peter Wyeth: Chief of Party, CAPP Project, Yaounde

CAMEROON AGRICULTURAL SECTOR OVERVIEW

Table of Contents

Acknowledgements

| | |
|---|----|
| I. THE AGRICULTURAL SECTOR | 1 |
| A. Geography, Vegetation, and Agro-ecological Zones | 1 |
| B. Human Resources | 2 |
| C. Agricultural Development | 3 |
| D. Institutions | 6 |
| E. Agriculture and the National Economy | 9 |
| II. CONSTRAINTS TO SUSTAINED AGRICULTURAL GROWTH AND DEVELOPMENT | 11 |
| A. Classes of Constraints | 11 |
| B. Impediments to Lower Costs of Production | 11 |
| 1. Smallholders | 11 |
| 2. Agribusiness | 13 |
| C. Constraints Affecting Market Prospects | 15 |
| D. Natural Resources and Sustainable Development | 16 |
| E. Constraints Affecting Government Services | 19 |
| F. Government Services Affected | 20 |
| III. MAJOR EFFORTS TO PROMOTE SUSTAINED AGRICULTURAL SECTOR GROWTH AND DEVELOPMENT | 21 |
| A. The Government of Cameroon | 21 |
| B. USAID | 24 |
| C. The World Bank | 25 |
| D. Other Multilateral Donors | 26 |
| E. France | 28 |
| F. Other Bilateral Donors | 29 |
| IV. PROSPECTS FOR THE AGRICULTURAL SECTOR IN CAMEROON AND OPPORTUNITIES FOR USAID | 31 |
| A. Areas of Concentration and a Regional Focus | 31 |
| B. Economic Liberalization and Policy Reform - <i>National Focus</i> | 37 |
| C. Agribusiness Development - <i>Regional Focus</i> | 38 |
| D. Environment and Natural Resources Management - <i>Regional Focus</i> | 42 |
| E. Agricultural Research and Higher Education | 45 |
| F. Roads Not Taken | 47 |
| References | 50 |
| Acronyms | 54 |

Acknowledgements

This work would not have been possible without the large amount of information provided by the Government of Cameroon and USAID Cameroon. At the beginning of the exercise Mr. John McMahon, Director of the Agriculture and Rural Development Office (ARDO) at USAID, solicited the GRC's collaboration and found a willing response. Mr. Colbert Tchata, Chief of the Division of Agricultural Projects (DPA) in MINAGRI, chaired meetings at which this collaboration was discussed and planned. Leading roles in these discussions were played by Mr. Zacharie Perevet, then Director of Agro-economic Surveys and Agricultural Planning (DEAPA) in MINAGRI and now Secretary of State in MINPAT, Dr. Paul Tsangué, Director of Studies, Projects and Training (DEPF) in MINEPIA, and Mr. Patient Bebe Manga Bell, Director of Planning in MINPAT.

Dr. Tsangué worked with Dr. Albert Doufissa, Sub-Director for Training, to produce an elegant and valuable evaluation of the livestock and fisheries sector, following the outline worked out in the preparatory meetings. For agriculture, a DEAPA staff member, M. Ndumbe, was delegated to draw up an important report, also following this outline. M. Jean-François Cavana, advisor to the DPA, provided documents drawn up in that division. All these reports are cited in the References.

For USAID, material was provided by Mr. John McMahon, Ms. Elzadia Washington, Project Officer, and Mr. Ambe Tanifum, Assistant Project Officer in ARD/USAID. We also received valuable comments from Mr. McMahon on earlier drafts.

Concerning agribusiness strategy, we had many discussions with Dr. Kifle Negash of EAPRI/USAID, and Dr. Edgar Ariza-Niño, a consultant engaged by USAID on the subject. Dr. Ariza-Niño's report helped us shape our section on agribusiness in this report.

We would also like to thank Mrs. Marie Thérèse Renault, Administrative Assistant of the CAPP Project, and to Mrs. Colette Enow Ashuneke, Mrs. Bertha Takang and Mrs. Margaret Tamanji of ARDO/USAID, for help with the typing.

As always, although many people have assisted the authors, neither they nor the Government of Cameroon or USAID necessarily agree with the document's conclusions. Nevertheless, we hope the latter will find this work a useful input to their strategic planning processes.

CAMEROON AGRICULTURAL SECTOR OVERVIEW

I. THE AGRICULTURAL SECTOR¹

A. Geography, Vegetation, and Agro-ecological Zones

Cameroon covers a surface area of some 475,000 km², with a population of 12 million inhabitants and a density of 25 inhabitants per km². The country is divided into ten provinces which are themselves split into divisions (départements in French) which numbered 49 (see Figure 1) until they were increased in September 1992 to 56. There is a very high degree of geographic diversity that has resulted in Cameroon often being referred to as "Africa in miniature", and in terms of biodiversity Cameroon is one of the most important countries in Africa and in the world. There is also an impressive ethnic and cultural diversity within the country, indicated by the fact that there are over 250 distinct indigenous languages.

Varied landscapes with alternating plains, plateaus and highlands characterize the geography. The main physical units are: (i) the coastal lowlands between the Atlantic Ocean and the continental high plateaus; (ii) the south Cameroon plateau in the southern and south-eastern portion of the country, stretching from the western highlands and the Adamaoua plateau to the borders of the country, and ranging from 250 to 800 meters in altitude; (iii) the Adamaoua plateau in the center of the country, with an average altitude of 1,100 meters; (iv) the western highlands, including Mt. Cameroon; and (v) the northern plain, which begins at the northern foot of the Adamaoua plateau.

The vegetation of Cameroon is a summary of African inter-tropical vegetation with a humid southern forest and a central savanna as well as mountain forests and prairies (see Figure 2). Very broadly, it may be considered that of the total surface area covered by Cameroon, 11% is located in a "dry savanna" type zone, 20% in a "humid highland savanna" zone and 58% in a "humid dense forest" zone, the remainder being in transition zones. Of the 175,000 km² of non-degraded closed forest, 140,000 km² are considered exploitable.

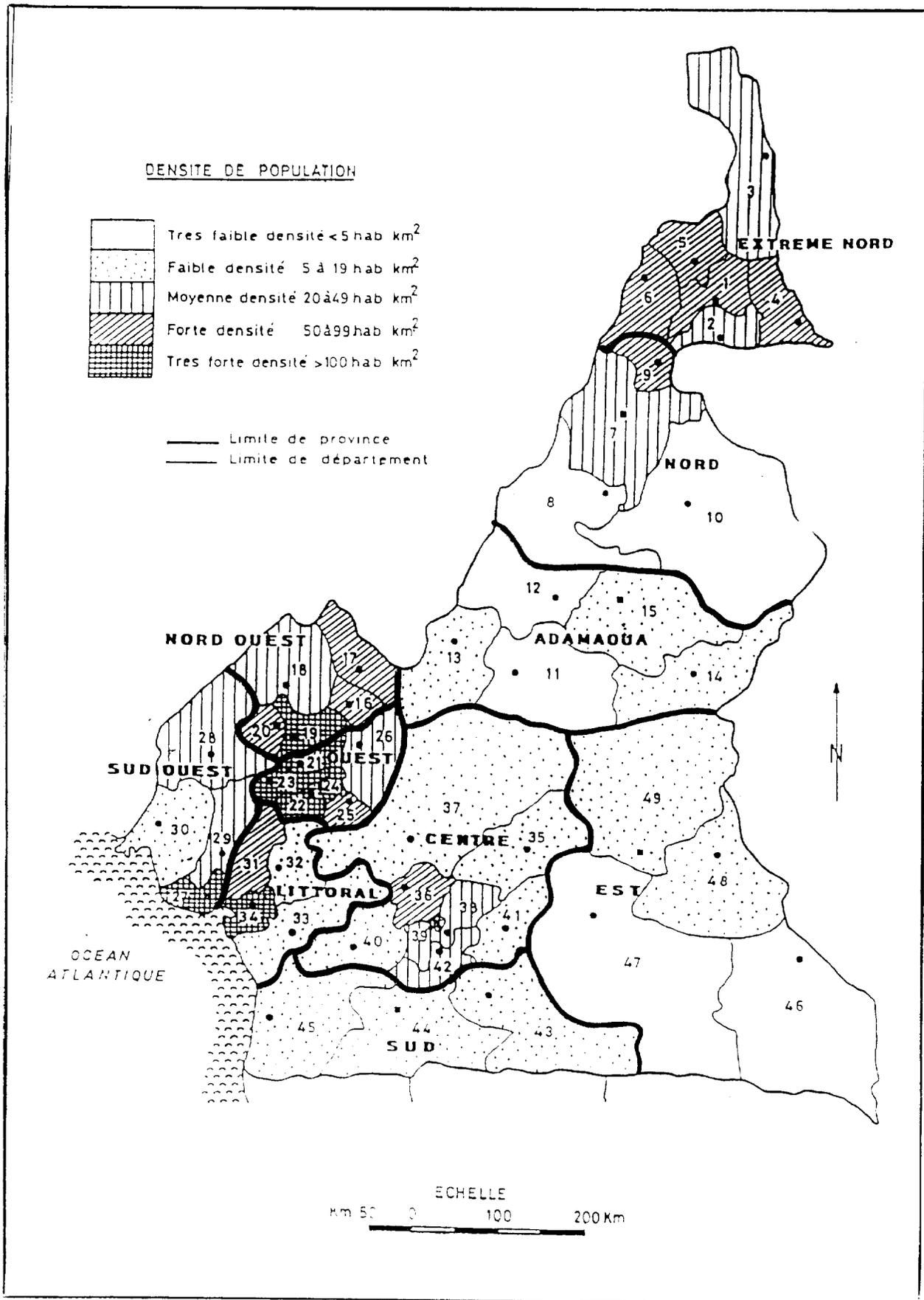
Based on the climatic conditions, the vegetation, soils and altitude, Cameroon may be divided into five agro-ecological zones. Agricultural potential varies from good to excellent in all except the first, where the level of rainfall is uncertain from year to year as well as low on average. From north to south and from west to east in the south, the agro-ecological zones and principal crop and livestock activities are as follows (also see Figure 3):

1. Sudano-Sahelian Zone

- rainfall: from above 1,000 mm south of Garoua to less than 800 mm north of Garoua (less than 500 mm around Lake Chad), monomodal
- vegetation growth period: 180 to 110 days
- crops: millet, sorghum, irrigated rice, peanuts, sesame, cotton
- livestock: cattle, sheep, and goats

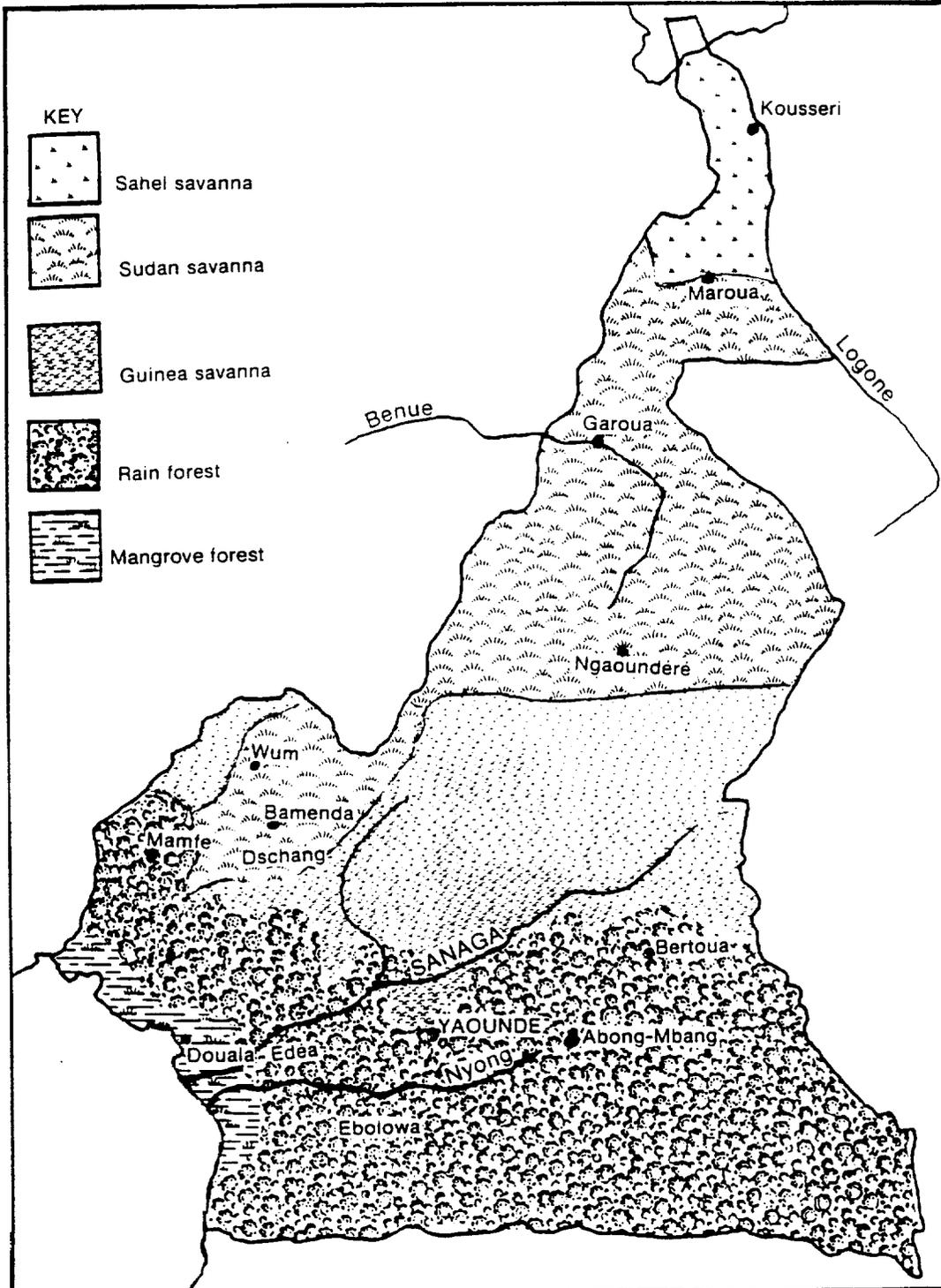
¹Agriculture is used throughout this document in its broad sense, to refer to crop production, livestock, forestry, fish farming, and fishing activities in rivers, lakes and the ocean.

Figure 1: ADMINISTRATIVE UNITS AND POPULATION DENSITY



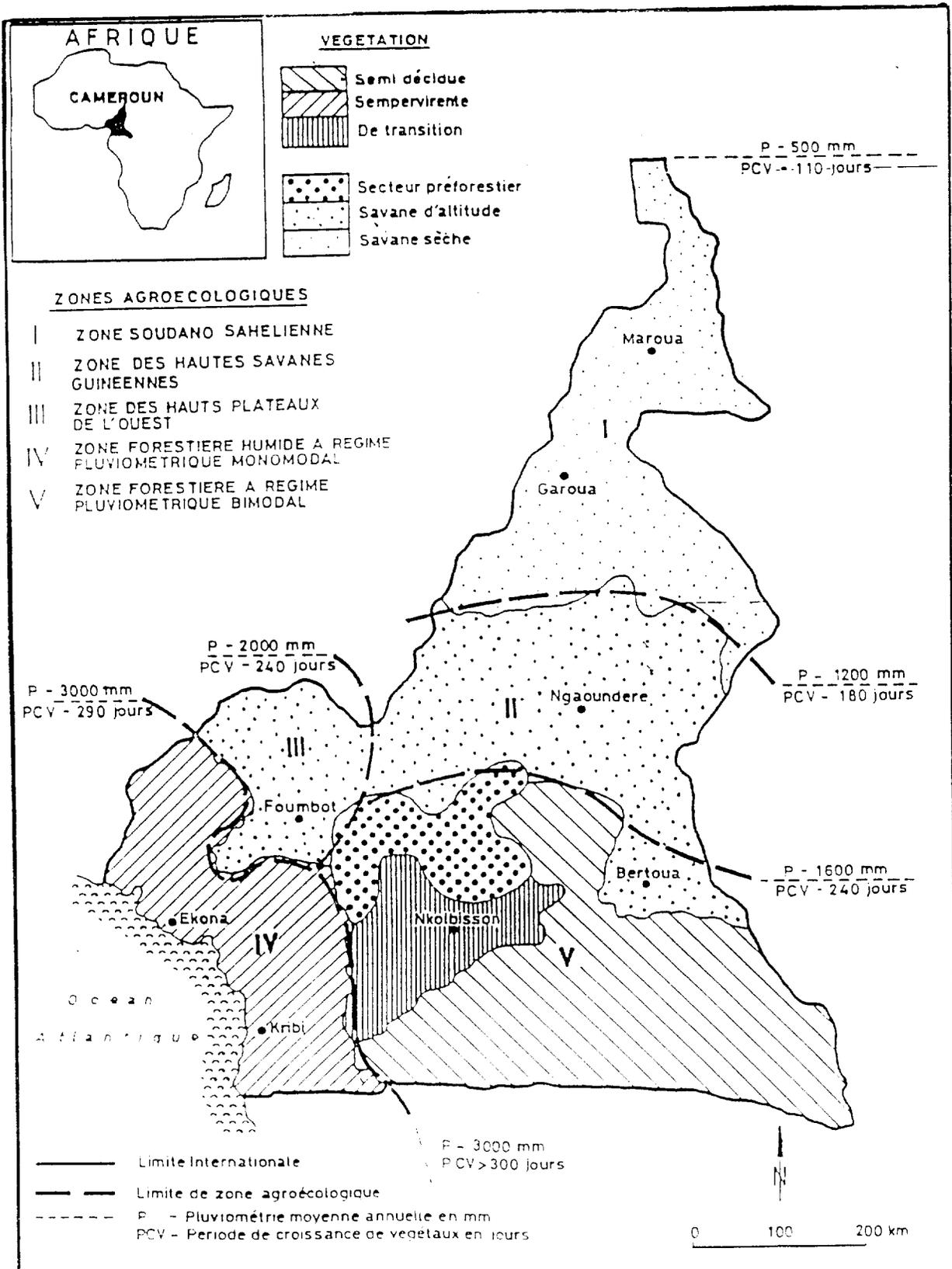
1-A

Figure 2: REGIONAL VEGETATION



Source: International Resources Group, Cameroon Natural Resources Management Assessment, May 1992

Figure 3: AGRO-ECOLOGICAL ZONES



Source: FAO/GRC - Cameroun: Etude de la restructuration de la recherche agricole, Juillet 1992.

2. High Guinean Savanna Zone
 - rainfall: 1,600 mm (Ngaoundere) with a rapid decrease towards the north, monomodal
 - vegetation growth period: 240 to 180 days
 - crops: sorghum, maize, peanuts, robusta coffee in the south in low topographic locations
 - livestock: mainly cattle

3. Western High Plateaus Zone
 - rainfall: 2,000 to less than 4,000 mm, monomodal
 - vegetation growth period: 280 days
 - crops: maize, rice, plantains, bananas, cassava, taro, cocoyams, potatoes, vegetables, arabica coffee
 - livestock: cattle, pigs, poultry, goats, and sheep

4. Humid Forest Zone with Monomodal Rainfall Regime
 - rainfall: 3,000 to less than 4,000 mm
 - vegetation growth period: more than 300 days
 - crops: palm trees, robusta coffee, cocoa, rubber trees, roots and tubers
 - livestock: pigs and goats

5. Humid Forest Zone with Bimodal Rainfall Regime
 - rainfall: 1,600 to 2,000 mm
 - vegetation growth period: 300 days
 - crops: robusta coffee, cocoa, palm trees, roots and tubers, maize
 - livestock: pigs and goats.

B. Human Resources

Cameroon's population of approximately 12 million in 1992 is growing at an annual rate of around 3 percent; (source 1987 Population Census). This will result in a population in excess of 15 million by the year 2000. Reflecting the high level of fertility (total fertility rate above 6.5 children per woman) Cameroon has a young age structure, with more than 55 percent of the population estimated to be under 20 years of age. This represents a heavy burden for an essentially agricultural economy, with substantial claims on resources in the fields of education, health and employment dependent on the productive capacity of the relatively small proportion of adults.

Population density is very uneven, with 70% of the population residing in provinces accounting for a third of the country's total land surface. Three areas marked by relatively high population density include much of the Far North province; the central area of Central province, especially around Yaounde; and most broadly the western highlands (much of the Northwest and West provinces) down to the ocean in the area surrounding Douala. By contrast, much of Adamaoua province, the southern portion of the North province, and the southern part of the Eastern province are all very sparsely populated.

The 1987 Population Census established that 70.9% of the economically active population in the country claimed to be farmers, stockbreeders, hunters and fishermen. In 1984 the Agricultural Census found that, of the farm operators, 62% had no formal education

(58% for males and 83% for females), and only 9% had completed primary school. This compares with 40.9% of the population as a whole which the 1987 Population Census found had reached the level of primary education. Hence migration from rural to urban areas is considerable and selective by age, sex, and education. The urban population has gone from 18% of the population in 1967 to 28% in 1976 and 37% in 1987. The age distribution of the farm population from the 1984 Agricultural Census shows a distinct drop-off in the relatively productive 25-44 age range, and females outnumber males among those aged 15-54 and especially in the 25-44 age range. Thus, not only is it the case that the burden of food production is being placed on an ever smaller portion of the population, but this farm population is increasingly devoid of prime-aged males.

C. Agricultural Development

Agriculture occupies about 2.3 million hectares (15%) of a total of more than 15 million hectares of cultivable land. Therefore, the overall pressure on land is low. However, a comparison of Figures 1 and 3 shows that population density is not always well correlated with high agricultural potential, most notably in the Far North where the prospects for food production are least promising though population density is high, while in Adamaoua agricultural potential is high though the province's population is low. This unevenness has a bearing on food security which, while it is good over most of the country, is precarious in the Far North. Furthermore, population pressure has been severe enough in some areas of high agricultural potential, such as the West and Northwest provinces, that increasingly marginal land has been cultivated, particularly very steep slopes where soils are liable to erode rapidly.

The **traditional sector** in agriculture produces most of the food crops and is also largely responsible for production of several key export crops, including virtually all the cocoa, coffee, and cotton. The Agricultural Census and Surveys find about 1.2 million smallholder farms, with total planted area per farm being between 1.5 and 2 hectares (first and second plantings combined).

Data on **food crop production** are given in Table 1. Root crops plus plantains and bananas are the staples in most areas, followed by grains and pulses. The picture is different in the northern part of the country where climate dictates that sorghum, millet and rice be the main crops. (Note that rice production here excludes what smallholders produce under the parastatal company, SEMRY).

While the five year averages in Table 1 can be taken to be good indications of orders of current magnitude, it is not so clear what trends are over time. The data suggest that production is fluctuating but not growing. Some observers, citing the absence of practical evidence of food shortages, would prefer to see production data closely match the 3% rate of population growth and question the accuracy of the data. Methodological problems in collecting data on continuously harvested crops, considerations concerning quality control in the field, and high coefficients of variation for less commonly produced crops make it difficult to insist that their argument has no merit.

However, it is also true that imports of food crops have been increasing, as Table 2 shows. In particular, the amount of wheat flour brought into the country has been growing. Some of this tonnage may be sent on to landlocked countries which use the port of Douala,

**Table 1: TRADITIONAL SECTOR FOOD
CROPS: 1984/85 to 89/90 AVERAGES**

| | Number of farms | Produc- tion (mt) | Area (ha) |
|---------------|--------------------|-------------------------|--------------|
| Cassava | 503,882 | 1,435,156 | 94,533 |
| Plantains | 530,718 | 1,079,253 | 63,555 |
| Cocoyams | 539,627 | 829,775 | 105,707 |
| Bananas | 525,310 | 688,186 | 37,429 |
| Yams | 429,672 | 97,220 | 23,646 |
| Potatoes | 125,827 | 27,202 | 17,203 |
| Maize | 759,500 | 366,825 | 191,063 |
| Sorghum | 334,773 | 346,802 | 436,936 |
| Rice (1) | 12,872 | 16,380 | 6,744 |
| Ground nuts | 657,213 | 89,316 | 114,843 |
| Beans | 490,302 | 54,161 | 81,792 |
| Peas | 112,743 | 5,805 | 7,938 |
| Sugar cane | 173,157 | 98,679 | 2,863 |
| Palm oil (lt) | 187,530 | 43,603 | 26,982 |

(1) Rice does not include SEMRY production

Source: Agricultural Census and Surveys,
DEAPA/MINAGRI

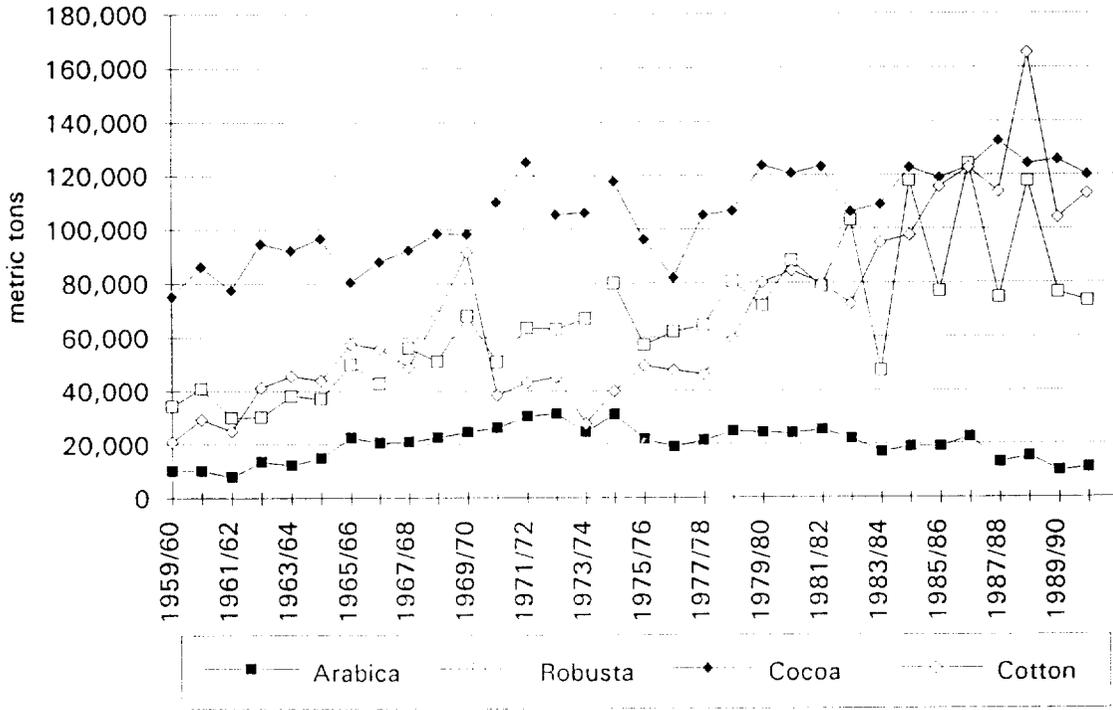
Table 2: FOOD IMPORTS, 1980 - 1991

| | Flour | Frozen fish | Wheat | Malt | Rice | Milk & cream |
|------|----------------------------|----------------|-------|------|------|-----------------|
| | (thousands of metric tons) | | | | | |
| 1980 | 33 | 24 | 54 | 51 | | |
| 1981 | 80 | 23 | 54 | 46 | | |
| 1982 | 71 | 30 | 58 | 64 | 276 | 37 |
| 1983 | 76 | 36 | 78 | 64 | 192 | 11 |
| 1984 | 87 | 51 | 108 | 66 | 170 | 12 |
| 1985 | 92 | 62 | 92 | 86 | 264 | 28 |
| 1986 | 152 | 78 | 33 | 109 | 225 | 14 |
| 1987 | 203 | 65 | 30 | 80 | 99 | 12 |
| 1988 | 276 | 64 | 62 | 79 | 147 | 23 |
| 1989 | 250 | 59 | 23 | 63 | 100 | 10 |
| 1990 | 296 | 59 | 17 | 72 | 74 | 10 |
| 1991 | 362 | 57 | 41 | 62 | 126 | 14 |

These figures may include re-exports to neighboring countries.

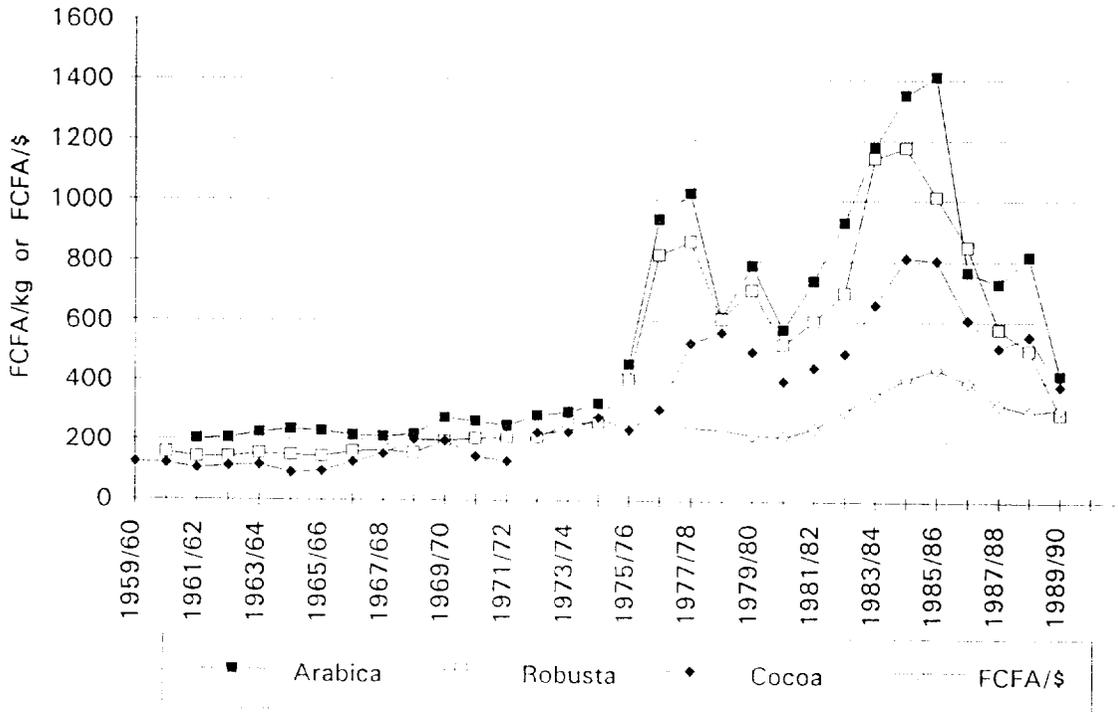
Source: Office National de Ports

Chart 1: Export Crop Production



Source: Compilation by DEAPA/MINAGRI and CAPP Project (USAID) from various sources.

Chart 2: Export Crop Prices (f.o.b.)



Source: Compilation by DEAPA/MINAGRI and CAPP Project (USAID) from various sources

Table 3: MODERN AGRICULTURAL SECTOR: A PARTIAL STATISTICAL OVERVIEW

| Crop | Name | State or private | Year | Production | Producing | Yield | Purchases (see note) | Production (processed) | Proc. as % of unproc. |
|---------------------------|---------------------------------|----------------------|---------|---------------------|--------------|-------|-------------------------|---------------------------|--------------------------|
| | | | | (unprocessed mt) | Area (ha) | | | | |
| Bananas | CDC (a)/ Del Monte (Tiko) | private | 1987/88 | 0 | 0 | 0 | | | |
| | | | 1988/89 | 6,180 | | | | | |
| | | | 1989/90 | 22,013 | 1,010 | 21.8 | | | |
| | | | 1990/91 | 35,556 | 1,200 | 29.6 | | | |
| Bananas | CDC (a)/ AGRISOL (Ekona) | private | 1987/88 | 6,401 | 345 | 18.6 | | | |
| | | | 1988/89 | 3,753 | 270 | 13.9 | | | |
| | | | 1989/90 | 5,000 | | | | | |
| | | | 1990/91 | 5,000 | | | | | |
| Bananas | SBM | private | 1987/88 | | | | | | |
| | | | 1988/89 | | | | | | |
| | | | 1989/90 | 17,732 | | | | | |
| | | | 1990/91 | 19,000 | | | | | |
| Bananas | SPNP | private | 1987/88 | | | | | | |
| | | | 1988/89 | 7,500 | | | | | |
| | | | 1989/90 | 18,000 | | | | | |
| | | | 1990/91 | 30,000 | | | | | |
| Bananas | PHP | private | 1987/88 | 2,000 | | | | | |
| | | | 1988/89 | 2,000 | | | | | |
| | | | 1989/90 | 2,000 | | | | | |
| | | | 1990/91 | 2,000 | | | | | |
| Bananas | Total | | 1987/88 | 8,401 | | | | | |
| | | | 1988/89 | 19,433 | | | | | |
| | | | 1989/90 | 64,745 | | | | | |
| | | | 1990/91 | 91,556 | | | | | |
| Maize | MAISCAM | private | 1987/88 | 1,064 | | | | | |
| | | | 1988/89 | 1,130 | | | | | |
| | | | 1989/90 | 1,909 | | | | | |
| | | | 1990/91 | 4,500 | | | | | |
| Paddy | SEMRY | state | 1987/88 | 59,547 | 11,577 | 5.1 | | | |
| | | | 1988/89 | 52,179 | 10,775 | 4.8 | | | |
| | | | 1989/90 | 53,665 | 10,848 | 4.9 | | | |
| | | | 1990/91 | 52,377 | 9,389 | 5.6 | | | |
| Palm oil (bunches/oil) | CDC (a) | state | 1987/88 | 101,408 | 12,607 | 8.0 | 17,604 | 25,107 | 21.1% |
| | | | 1988/89 | 94,552 | 12,237 | 7.7 | 21,070 | 24,495 | 21.2% |
| | | | 1989/90 | 95,818 | 12,141 | 7.9 | 22,630 | 26,412 | 22.3% |
| | | | 1990/91 | 83,713 | 11,293 | 7.4 | 20,444 | 24,232 | 23.3% |
| Palm oil (bunches/oil) | PAMOL | private now state | 1987/88 | 45,560 | 5,318 | 8.6 | 0 | 8,006 | 17.6% |
| | | | 1988/89 | 47,895 | 6,796 | 7.0 | 8,525 | 10,584 | 18.8% |
| | | | 1989/90 | 47,400 | 6,184 | 7.7 | 8,730 | 10,743 | 19.1% |
| | | | 1990/91 | 47,763 | 6,777 | 7.0 | 6,599 | 10,459 | 19.2% |
| Palm oil (bunches/oil) | SAFACAM | private/ state | 1987/88 | 34,050 | 2,994 | 11.4 | 8,985 | 8,503 | 19.8% |
| | | | 1988/89 | 27,203 | 3,405 | 8.0 | 7,999 | 5,044 | 14.3% |
| | | | 1989/90 | 31,975 | 3,407 | 9.4 | 5,392 | 7,580 | 20.3% |
| | | | 1990/91 | 34,476 | 3,616 | 9.5 | 10,138 | 8,798 | 19.7% |
| Palm oil (bunches/oil) | SOCAPALM | state | 1987/88 | 248,602 | 21,090 | 11.8 | 18,918 | 52,792 | 19.7% |
| | | | 1988/89 | 218,356 | 21,082 | 10.4 | 17,867 | 48,004 | 20.3% |
| | | | 1989/90 | 254,320 | 21,092 | 12.1 | 20,655 | 57,821 | 21.0% |
| | | | 1990/91 | 231,436 | 21,082 | 11.0 | 13,729 | 49,026 | 20.0% |
| | | | 1991/92 | 240,000 | 21,162 | 11.3 | 16,000 | 55,000 | 21.5% |
| Palm oil (bunches/oil) | SPFS | private | 1987/88 | 21,093 | 2,332 | 9.0 | 2,090 | 5,033 | 21.7% |
| | | | 1988/89 | 22,380 | 2,509 | 8.9 | 2,678 | 5,468 | 21.8% |
| | | | 1989/90 | 30,504 | 2,793 | 10.9 | 2,350 | 7,317 | 22.3% |
| | | | 1990/91 | 26,530 | 2,767 | 9.6 | 980 | 7,919 | 28.8% |
| Palm oil (bunches/oil) | Total | | 1987/88 | 450,713 | 44,341 | 10.2 | 47,597 | 99,441 | 20.0% |
| | | | 1988/89 | 410,386 | 46,029 | 8.9 | 58,139 | 93,595 | 20.0% |
| | | | 1989/90 | 460,017 | 45,617 | 10.1 | 59,757 | 109,873 | 21.1% |
| | | | 1990/91 | 423,918 | 45,525 | 9.3 | 51,890 | 100,434 | 21.1% |

(Continued)

3-0

Modern Agricultural Sector: A Partial Statistical Overview (continued).

| Crop | Name | State or private | Year | Production (unprocessed) | Producing Area | Yield | Purchases (see note) | Production (processed) | Proc. as % of unproc. |
|----------------------|-------------------|-----------------------|---------|--------------------------|----------------|-------|----------------------|------------------------|-----------------------|
| Rubber | CDC (a) | state | 1987/88 | 17,851 | 15,465 | 1.2 | 354 | 17,912 | |
| | | | 1988/89 | 19,227 | 16,497 | 1.2 | 703 | 20,130 | |
| | | | 1989/90 | 18,945 | 17,090 | 1.1 | 732 | 19,731 | |
| | | | 1990/91 | | | | | | |
| Rubber | HEVECAM | state | 1987/88 | 8,061 | 8,959 | 0.9 | | | |
| | | | 1988/89 | 11,874 | 10,157 | 1.2 | | | |
| | | | 1989/90 | 14,535 | 12,284 | 1.2 | | | |
| | | | 1990/91 | 16,958 | | | | | |
| | | | 1991/92 | 21,800 | | | | | |
| Rubber | SAFACAM | private/ state | 1987/88 | 2,850 | 3,274 | 0.9 | | | |
| | | | 1988/89 | 2,905 | 3,369 | 0.9 | | | |
| | | | 1989/90 | 2,830 | 3,330 | 0.8 | | | |
| | | | 1990/91 | | | | | | |
| | | | 1991/92 | 1,935 | 2,704 | 0.7 | | | |
| Rubber | Total | | 1987/88 | 28,762 | 27,698 | 1.0 | | | |
| | | | 1988/89 | 34,006 | 30,023 | 1.1 | | | |
| | | | 1989/90 | 36,310 | 32,704 | 1.1 | | | |
| | | | 1990/91 | | | | | | |
| Sugar cane/ sugar | SOSUCAM | state, now private | 1987/88 | 344,563 | 6,505 | 53.0 | | 28,296 | 8.2% |
| | | | 1988/89 | 415,518 | 6,201 | 67.0 | | 38,524 | 9.3% |
| | | | 1989/90 | 389,800 | 6,380 | 61.1 | | 39,503 | 10.1% |
| | | | 1990/91 | | | | | | |
| Sugar cane/ sugar | CAMSUCO | state | 1987/88 | 453,940 | 9,471 | 47.9 | | 36,065 | 7.9% |
| | | | 1988/89 | 415,975 | 7,775 | 53.5 | | 38,182 | 9.2% |
| | | | 1989/90 | 406,205 | 7,487 | 54.3 | | 32,503 | 8.0% |
| | | | 1990/91 | 440,850 | 7,600 | 58.0 | | 38,182 | 8.7% |
| | | | 1991/92 | | | | | | |
| Sugar cane/ sugar | Total | | 1987/88 | 798,503 | 15,976 | 50.0 | | 64,361 | 8.1% |
| | | | 1988/89 | 831,493 | 13,976 | 59.5 | | 76,706 | 9.2% |
| | | | 1989/90 | 796,005 | 13,867 | 57.4 | | 72,006 | 9.0% |
| | | | 1990/91 | | | | | | |
| Tea | CDC(a)/ CDC(b) | state, now private | 1987/88 | 2,882 | 1,238 | 2.3 | | | |
| | | | 1988/89 | 2,452 | 1,412 | 1.7 | | | |
| | | | 1989/90 | 2,407 | 1,486 | 1.6 | | | |

Figures in italics are forecasts or provisional.

Purchases are from surrounding smallholders and other independent producers.

Sources: The enterprises themselves.

- CDC (a) Cameroon Development Corporation
- CDC (b) Commonwealth Development Corporation (U.K.)
- SBM Société des Bananeraies de la M'Boumé
- SEMRY Société d'Expansion et de Modernisation de la Riziculture de Yagoua
- PHP Plantations de Haut Penja
- SPFS Société des Palmeraies de la Ferme Suisse
- SPNP Société Nouvelle des Plantations de Penja

3-D

but most can be assumed to remain in Cameroon. The trend is a common one in developing countries, encouraged here as elsewhere by price controls on bread.

Chart 1 shows purchases of **export crops** by buying agents. The figures can be accepted as good proxies for annual production, as there is no on farm consumption of these items. The concern here is what the impact will be of the disastrous fall in international prices, shown in Chart 2. Although official producer prices had not risen by nearly as much as f.o.b. prices, the fall from farmers' point of view was as precipitous because funds to pay official prices were not there. The government accumulated vast arrears to farmers and buying agents which, with donor assistance, are still being paid off. Production of cocoa and cotton (ignoring the one year outlier of 1988/89) is holding up reasonably well so far. Robusta production has been more erratic and trends are difficult to see so far, but the price is now so low that decreases must be expected. As for arabica, the tendency was downward even before the collapse in prices. Arabica is grown in only two provinces (West and Northwest), each of them well suited also to producing food crops, including vegetables and fruits, and it is probable that farmers would have preferred the unregulated market for these items than the artificially suppressed prices for arabica coffee.

An export crop which has gone against the generally prevailing trend and done very well is bananas. Exports varied between 43,000 and 64,000 tons between 1980 and 1989. Then 74,665 tons were exported in 1990 and 112,272 tons in 1991, while the forecast for 1993 is 220,000 tons. This improvement follows privatization of two parastatal banana operations, those of the CDC and the OCB, and is the greatest success story for this policy so far. What will place a limit on continued growth is competition from producers in the Caribbean and Latin America and the complex E.C. rules governing banana imports into France, where Cameroon's bananas are sold.

Some indications concerning **farm incomes** in the traditional sector can be had from 1984 Agricultural Census data on gross revenues from sales of crops and livestock. Average sales per farm were highest by far in the Southwest and Littoral provinces (FCFA 464,000 and FCFA 349,000 respectively). They were lowest in the Far North (FCFA 49,000), and low in the North and West provinces (FCFA 106,000 and FCFA 130,000). The average for the country was FCFA 178,000. Overall, just over half of gross sales revenue came from export and industrial crops, compared to 40 percent from food crops and less than 10 percent from livestock. The importance of each of these components varied considerably across provinces. At present, the relative share of income from export crops is undoubtedly lower than it was in 1984, and income from food crops is most likely more important.

The **modern agricultural sector**, operated by both private enterprise and the state, sometimes in joint ventures, is characterized by large areas of cultivated land. The World Bank reported a total area planted of 139,000 ha in 1989. Export and industrial crops in the modern sector are mainly bananas, palm oil, rubber, sugar, tea, tobacco, and some robusta coffee (see Table 3). To a lesser extent, there is also modern sector production of maize for the local market and green beans for export, and in two cases -- namely rice and cotton -- parastatals actively promote and support production by smallholders. Over the past twenty years, the GRC has invested substantial human, material and financial resources in this sector, but generally over-staffed, high cost operations have resulted. Their ability to compete in export markets and with imports has been further diminished in recent years by the unfavorable exchange rate. The government's policy is to privatize where possible, but under current conditions buyers have not so far been found for all the enterprises available.

In 1990, the **livestock** population, as reported by the Ministry of Livestock, Fisheries, and Animal Industries (MINEPIA), amounted to 3 million cattle, 3.8 million sheep and goats, 400 thousand pigs, and over 7 million poultry (Douffissa and Tsangueu, 1992).² MINEPIA estimates for the 1980s indicate a decline in the population of cattle by almost 20%, a roughly stable number of sheep and goats, a more than 60% drop in the pig population, and sharp fluctuations with no clear trend for the number of poultry. Apart from a limited amount of modern poultry production, most animals are in the traditional sector and suffer from high rates of mortality, reflecting inadequate access to animal health services and appropriate inputs.

Fish production takes place off of Cameroon's 360 km of coastline in the Gulf of Guinea as well as in inland waters and (to a limited degree) inland fish farming. MINEPIA (Douffissa and Tsangueu) has recently reported total fish production at approximately 125 thousand tons, consisting of 73 thousand tons of maritime fishing (over 85% of which is artisanal), 52 thousand tons of inland fishing, and 50 tons from fish farming.

Forestry production is an increasingly important export, especially given the poor showing in the traditional categories of exports. In 1988/89 data indicate that some FCFA 44.6 billion were earned (Table 4). Nevertheless, the rate of exploitation remains low relative to available forest resources, and the GRC hopes to double production in the next few years. Forestry activities appear to be highly inefficient: it has been estimated that 25-35% of felled trees is lost at the logging sites and total losses from felled trees to sawn wood are estimated at 65-75%. Earnings are also diminished by the fact that most timber is exported in the form of logs rather than processed lumber, one of the reasons being that foreign lumbering companies find processing costs high here.

Biodiversity, meaning the number of different kinds of life forms (species abundance), the number of forms that occur nowhere else (endemism) and the number of different kinds of habitats (ecosystem diversity), is particularly high in the Cameroonian forests. Cameroon possesses some 297 species of mammals, 848 species of birds and 300 species of anurans. Nine thousand species of plants have been recorded with at least 156 endemic species including 45 on Mount Cameroon (Gartlan, 1992). A major reason for the immense variety of life in Cameroonian forests is the fact that they are an ancient and very stable system, especially the lowland coastal forests. This biodiversity provides a great potential for ecotourism and for non-timber forest exploitation. Current revenues from the exploitation of wildlife resources are estimated at FCFA 200 million. The forests are also of great scientific value to the world community. However, national parks and wildlife reserves (Table 5) account for only about 4% of Cameroon's land area (Table 5). Moreover, logging presently takes place in some forest reserves, and there is considerable concern about the adverse environmental consequences of the exploitation (including clearing of land by smallholders in response to population pressure as well as forestry activities).

²The corresponding MINEPIA figures for 1986 are all lower, by anywhere from 20% (cattle) to 36% (poultry), than the livestock estimates reported for that year by the World Bank (1989). In part this difference appears to reflect the Bank's reliance on figures from Cameroon's 6th National Plan, which exceed those reported by Douffissa and Tsangueu (1992) for the same period.

**TABLE 4: QUANTITY AND VALUE OF TROPICAL FOREST
ROUNDWOOD AND LUMBER EXPORTS, 1984/85 - 1988/89**

| | 1984/85 | 1985/86 | 1986/87 | 1987/88 | 1988/89 |
|------------------------|---------|---------|---------|---------|---------|
| Quantity (mt) | | | | | |
| Roundwood | 551,257 | 388,328 | 300,601 | 357,100 | 529,339 |
| Lumber | 61,569 | 40,949 | 25,877 | 43,799 | 91,716 |
| Value (mm FCFA) | | | | | |
| Roundwood | 24,914 | 23,348 | 18,251 | 19,646 | 34,233 |
| Lumber | 5,081 | 3,683 | 2,634 | 4,648 | 10,452 |

Source: International Resources Group, Cameroon Natural Resources Management Assessment, May 1992, quoting figures on file at the World Bank.

**TABLE 5: NATIONAL PARKS AND WILDLIFE RESERVES OF
CAMEROON**

| | Community | Area (sq. km) | Major degradation |
|--------------------------|------------------|------------------|--|
| Parks | | | |
| Benue | savanna | 1,800 | natural flooding impaired by dam |
| Bouba-Njida | savanna | 2,140 | |
| Faro | savanna | 3,300 | |
| Kalamaloué | savanna | 45 | |
| Korup | evergreen forest | 1,260 | |
| Mozoko-Gokoro | savanna | 14 | |
| Waza | savanna | 1,700 | |
| Subtotal | | 10,259 | |
| Wildlife Reserves | | | |
| Campo | evergreen forest | 2,700 | opened to logging |
| Dja | evergreen forest | 5,260 | in process of partial declassification |
| Douala-Edea | evergreen forest | 1,600 | |
| Kimi River | savanna | 56 | may have been totally destroyed |
| Lake Ossa | evergreen forest | 40 | |
| Mbi Crater | evergreen forest | 4 | |
| Nanga-Eboko | evergreen forest | 160 | |
| Sanaga | evergreen forest | ? | may have been totally destroyed |
| Santchou | evergreen forest | 70 | 45% destroyed |
| Subtotal | | 9,890 | |

Source: International Resources Group, Cameroon Natural Resources Management Assessment, May 1992.

D. Institutions

Public sector institutions. Government bodies are involved in various activities influencing Cameroonian agriculture, most notably in the areas of policy and planning, research, extension and education. Three ministries have been directly involved in policy and planning activities. The Department of Agro-Economic Surveys and Agricultural Planning (DEAPA) and the Agricultural Projects Division (DPA) in MINAGRI, the Department of Studies, Projects, and Training (DEPF) in MINEPIA, and the Department of Planning in the Ministry of Planning and Regional Development (MINPAT) all have responsibility in this area. A new Ministry of Environment and Forests (MINEF), which is responsible for natural resources management and policies, was created in April 1992. MINEF regroups units concerned with forestry and natural resources which had been dispersed in several other ministries. In addition, the Ministry for Development of Industry and Commerce (MINDIC) is involved in implementing policies, by establishing minimum producer prices for robusta coffee, cocoa, cotton, rice and meat. USAID, France, and the World Bank have provided most of the training and technical assistance to MINAGRI and MINEPIA in particular, but in each ministry the number of personnel is well above government needs.

Agricultural research is divided between two institutions: the Institut de la Recherche Agricole (IRA), with a mandate to do research and development in agriculture and forestry to improve crop and forest production; and the Institut de Recherches Zootechniques et Vétérinaires (IRZV), which has a mandate to do research to improve livestock and fish production and to conserve wildlife. IRA has its headquarters at Nkolbisson and has four regional centers, each of which controls several stations which in turn control a number of antennas or substations. IRZV also is headquartered at Nkolbisson, with three regional centers and a national fisheries center, and a number of stations and antennas. The two organizations combined have a total of 225 researchers.

In Cameroon, research has always been conducted by semi-autonomous institutions under specialized ministries. After independence there were 12 research institutes, which were reduced to 5 in 1979: agriculture (IRA), animal science (IRZ), geology and mines (IRGM), social sciences (ISH), and medicine and medicinal plants (IMPM). A further reform took place in 1992 with the creation of the separate Ministry for Scientific and Technical Research (MINRST). Only three institutes remain: IRA, IRZV and IRGM. In the future it is also likely that IRA and IRZV will be merged (see section IV-E on agricultural research).

Extension activities for crops are carried out by MINAGRI and by specialized parastatals (e.g., SODECAO, SODECOTON) and rural development projects. In 1987-88, MINAGRI had a total of 1,938 "moniteurs agricoles," and there were an additional 1,600 "encadreurs" in parastatals. Livestock extension is provided through MINEPIA, which has a total of 459 "centres zootechniques et vétérinaires" (CZV) at the village level and at least 741 persons involved in extension. As noted in a recent MINEPIA report (Doufissa and Tsanguéu, 1992, p. 54), "effective veterinary work is done by the heads of the CZV, the personnel least well-trained and without an appropriate operating budget."

The University Center at Dschang (CUD) is a generally well-equipped institution set up to emphasize university level training and research into agriculture, livestock and forestry. The university is being developed on the land grant model, with eight departments, and over 500 students and the potential to expand to from 1,000 to 2,000. Over 100 academic staff with graduate degrees give it probably one of the best agricultural faculties in West and

Central Africa. The university has regional significance, attracting students from neighboring countries. It has received assistance for some years through several donors, USAID in particular. Other donors include Belgium, France, Canada, and the Netherlands.

ENSIAAC (Ecole Nationale Supérieure des Industries Agro-alimentaires du Cameroun) at the University Center of Ngaoundere (CUN) provides university training in food science and agro-industries, is very well equipped and is supported by Saudi Arabia (infrastructure) and France (technical assistance). Other key educational institutions are the Wildlife College at Garoua and the National School of Water and Forests at Mbalmayo. Overall, the University of Yaounde is the premier academic institution in Cameroon, with a student enrollment of close to 50,000, (though it was built for a far smaller number). It does not offer business management training, however, for which students must attend the Ecole Supérieure des Sciences Economiques et Commerciales (ESSEC) at Douala.

Private enterprise. The private sector is well developed in certain segments of agriculture and agribusiness in Cameroon but has a history of heavy government regulation and support. Sometimes, as in product processing and marketing, this has allowed firms to enjoy subsidies, guaranteed margins or other advantages. The widespread public participation through holding companies is evidence of this past cozy symbiosis between the public and the private sector. The Cameroon Development Corporation (CDC) owns or manages plantations growing rubber, oil palm, bananas, tea and pepper, while the Société Nationale d'Investissements (SNI) has a stake in most private agribusiness firms of a certain size³. At other times, particularly in input supply, the effect of government intervention has been mainly to inhibit private sector development altogether as ministries or parastatals have kept the market to themselves by selling subsidized products.

As the GRC moves progressively toward market liberalization, those firms which have enjoyed net benefits from government intervention are having to adjust to a harsher environment where production and marketing efficiency must replace access to government protection. At the same time, areas left vacant by the demise of parastatal organizations are now available to private entrepreneurs. There is also room for ventures in new areas for the most enterprising firms, particularly in downstream wood processing and in non-traditional export crop production (e.g. Jardins de Foubot for fine green beans, Del Monte for bananas, AGROCAM for the export of eggs to RCA and Gabon).

However, economic circumstances are not easy for any of these enterprises. Partly this is due to the decline in the overall economy and the consequent sluggishness of demand. In part it is also due to the fact that the regulatory environment is difficult and adds to the cost of investing and operating here. Both of these points will be mentioned again below.

³With few exceptions, state agribusiness enterprises have been making massive losses, especially since the late 1980's. Losses *per employee* have been FCFA 1.4 million at CAMSUCO (sugar), FCFA 3.7 million at SCT (tobacco), FCFA 1.25 million at SPFS (oil palm), FCFA 1.5 million at SOFIBEL (wood products). More details on government in agribusiness can be found in the USAID Cameroon: Country Program Strategy Concept Paper - Analytical Study, Nelson et al., November 25, 1992.

Other private sector institutions. These institutions are still in their infancy, having been weaned from the public sector only recently. Thus, cooperatives under the new cooperative law are not managed anymore on behalf of the state but have not so far fully adjusted to their new role. They find it difficult to compete effectively with private firms as they are used to enjoying a monopoly situation. Management of cooperatives to the benefit of the members, i.e. bottom up instead of top down, will take time to evolve, as will cost effectiveness, and attention to quality and good service, all of these now being more important than access to special treatment from government and leverage with public sector institutions.

Two large cooperatives, UCCAO and NWCA, used to enjoy a regional monopoly in arabica coffee marketing. The monopoly is scheduled to be abolished by January 1, 1993. NWCA receives substantial support from USAID and is making progress, but management and governance still need to be greatly improved. Moreover, farmer support is still weak. A major shake out among the cooperatives is anticipated once the government and donors withdraw completely. A MINAGRI parastatal, CENADEC, which provided support for cooperatives, is in the process of liquidation.

The Chamber of Agriculture, which officially represents farmers, is still run by civil servants and funded entirely from the public budget. It represents the administration much more than any farmer. Producer associations and professional associations are developing, e.g. exporters and processors of traditional agricultural exports or poultry producers and processors, but they do not include smaller producers and are closely tied to the administration. A substantial number of small organizations or groups exist in connection with NGO or local community development initiatives, but they are diffuse and still very weak. They lack adequate organization and resources to express group interests effectively and counterbalance or keep a check on the administration.

The credit union movement, particularly in the Northwest province, is strong and buoyant, particularly after the demise of many banks. They play a major role in savings deposit generation but have great difficulties channelling such savings into productive investments. The Cameroon Credit Union League (CAMCCUL) has over 70,000 members and \$30 million in assets, and has benefitted from USAID assistance for a period spanning 17 years.

Informal financial intermediaries for savings and loans such as tontines and njangis are well developed and widespread, particularly in the West and Northwest provinces. They are an important source of savings and capital accumulation for the economy, although they are suitable only for providing small scale loans at high interest rates for short periods.

International organizations. International agencies are numerous and active in Cameroon. The World Bank, the E.C., the African Development Bank, and FAO/UNDP are involved in Cameroon's agricultural sector. The major bilateral donors are France, the United States, Canada, Germany, Great Britain, Italy, the Netherlands, Belgium. The activities of these different donor organizations will be described below in Section III.

NGOs, PVOs and governmental volunteer organizations in Cameroon are well developed and diverse, including the World Wide Fund for Nature, CARE, Catholic Relief Services, Wildlife Conservation International, the International Council for Bird Preservation, Living Earth, Médecins sans Frontières, SNV (Dutch volunteers), Peace Corps (American volunteers), VSN (French volunteers), the Gatsby Foundation (British), and others. Most NGOs/PVOs are active in the health and natural resources sector and community develop-

ment activities. The Dutch aid program is almost entirely geared towards NGO development.

Several CGIAR and other agricultural research institutions are prominent in Cameroon, taking advantage of its varied agro-ecological endowments, bilingual character and desire to play an international role in tropical agriculture. IITA has its substation for the humid forest zone at Mbalmayo, with analytical laboratories at IRA at Nkolbisson; ICRAF is present through its support for agroforestry research at IRA; CIP has its African subcenter at Bamenda for research on Irish and sweet potatoes; INIBAP's African representative is at Douala; ICRISAT supports some research on food grains, mainly sorghum and millet, through SAFGRAD in the north of Cameroon in collaboration with the NCRE project. In the past ISNAR has been active in improving organization and management at IRA and IRZV. Several CORAF supported research projects are being carried out by IRA. The Regional Center for Research on Bananas and Plantains (CRBP) is located at Njombe.

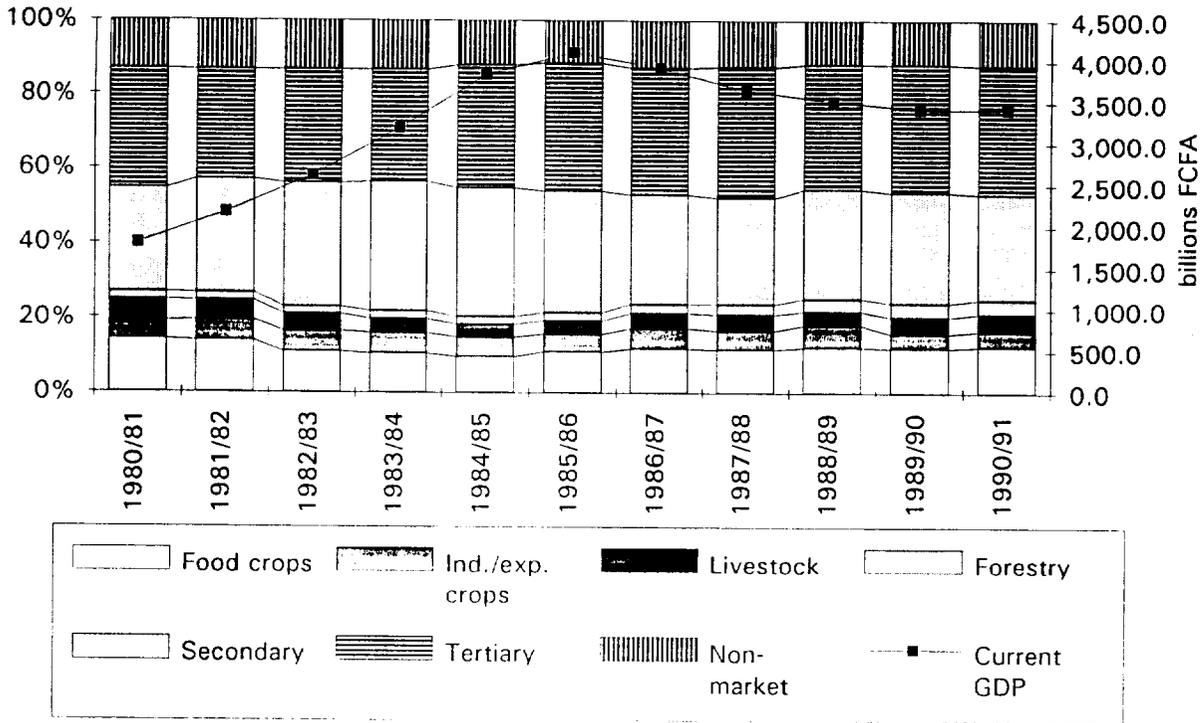
E. Agriculture and the National Economy

During the first half of the 1970s, prior to the oil boom, agriculture accounted for about 30% of GDP and 82% of the value of exports. The sector grew at an annual rate of approximately 4%. Then a significant boost from oil production beginning in the late 1970s raised GDP growth to double digits, reaching 15% in 1980 and continuing at about 8% into the mid-1980s. Chart 3 shows that GDP rose to a peak of FCFA 4,106.2 billion in 1985/86, or nearly \$1,100 per capita, and the World Bank listed Cameroon as a middle-income country. By 1985, when oil production peaked, agriculture accounted for only about 20% of GDP and 28% of export earnings. Export taxes were levied to raise revenues and a stabilization program (*caisse de stabilisation*) was established. In addition, the GRC pursued a policy of import substitution in which it established state firms to produce wheat, rice, sugar and palm oil; equalization funds (*caisses de péréquation*) were set up to protect them from dumping and the overvalued exchange rate. The rapidly growing public sector soaked up graduates from the educational system.

By the mid-1980s, however, oil prices declined, and Cameroon confronted not only falling prices in world markets for its principal export crops but also an adverse movement in the value of the U.S. dollar. Cameroon's currency, the CFA franc, is tied to the French franc at a fixed parity (50 FCFA = 1 FF) while export crops are traded at dollar prices. When the US dollar appreciated relative to the French franc in the first part of the 1980s it enhanced the competitiveness of Cameroon's agricultural exports, but when the dollar declined after 1985 (see the FCFA/\$ rate in Chart 2) it accentuated the decline in the FCFA prices of Cameroon's exports. The combined effect of the movements in commodity prices and currency markets was a fall in Cameroon's terms of trade by more than half between 1984-85 and 1986-87.

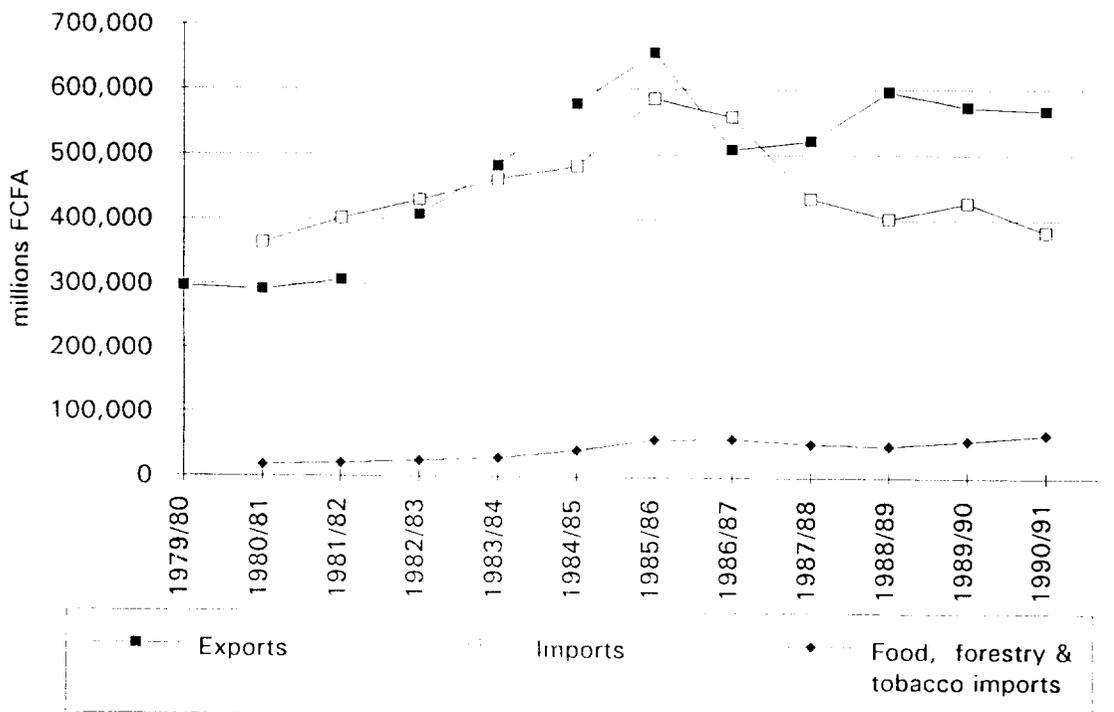
The consequences were seen in a deterioration in the economy. GDP began contracting in 1986-87, slowly at first and more rapidly as time went on; by 1990/91 real per capita GDP is estimated to have fallen by 32% and it has continued downward. With the decline, interventionist policies proved to be extremely costly and unsustainable. In 1989, the World Bank stated that "The present economic situation in Cameroon is characterized by stagnation in agriculture, a lack of competitiveness in manufacturing, illiquidity of the financial sector, and inefficiency in both public and parapublic enterprises" (World Bank, 1989, page 1).

Chart 3: Total GDP (current prices) and Percentage Contributions by Sector to GDP



Source: National Accounts, MINPAT

Chart 4: Exports and Imports



Source: National Accounts, MINPAT

2. A

The balance of payments went from a surplus in 1985 to deficit, with that deficit increasing to 9% of GDP in 1991-92. However, the deterioration in the economy has been accompanied by a decline in total recorded imports so that they now represent about three quarters of the volume that prevailed in the mid-1980s. Consequently the balance of trade has been positive more often than not, as Chart 4 shows, though it has been more than counteracted by increasing debt repayments and unfavorable shifts capital flows to produce a negative overall balance of payments. Chart 4 also illustrates the increase, mentioned in Section C., which has been occurring in purchases overseas of food, drink, and tobacco.

The GRC budget was essentially balanced during the growth years through 1985, with civil service salary payments constituting a stable share of GDP (approximately 5%), investment growing in importance from 5% of GDP in 1980 to nearly 11% in 1985, and interest payments on debt relatively modest. A significant budget deficit appeared in 1986-87, reflecting continued rises in investments and government salaries in the face of declining revenues. The government was soon forced to adjust to the curtailment in income, primarily through reducing the investment budget and non-salary operating expenses. By 1991-92 the investment budget was only one fifth of what it had been in 1986-87, and salaries were accounting for most of the total operating budget. Nevertheless, continued growth of the government payroll since 1988 has resulted in a persistent shortfall of revenues compared to costs. Despite rescheduling of its debt through the Paris Club, Cameroon has found it increasingly difficult to meet its financial obligations and payments to suppliers as well as its repayments of external debt are falling farther into arrears.

Beginning in 1987, Cameroon embarked on a structural adjustment program (SAP) with the assistance of the World Bank and the IMF. This program has entailed a sharp turnaround in the development strategy being pursued by the GRC, in recognition of its inability to sustain the policies of the past. There has been a strong emphasis on privatization and liberalization of the economy, with liquidation of non-performing parastatals. Since 1988 the number of parastatal enterprises has been reduced from 153 to 104, although only five of the numerous liquidated parastatals have been privatized. Several parastatals in the agricultural sector have been liquidated, including the ONCPB (previously involved in marketing of cocoa and coffee) and MIDEVIV (involved in input supply). Their functions have been liberalized, while the production and sale of high-value seeds and the distribution of fertilizers have been privatized.

However, the virtual elimination of operating expenses for important institutions like IRA and the University Center at Dschang made them almost entirely dependent upon donor funding to be able to continue operating. Delays in salary payments have rendered these organizations non-operational except where activities are fully funded by donors. The GRC's failure to reduce civil service salary payments is among the factors which has prevented release of the third \$50 million installment of the World Bank's structural adjustment loan. Cameroon failed to reach agreement with the IMF in late 1991 for a new stand-by arrangement, and this resulted in September 1992 in suspension of IMF programming, World Bank project assistance, and Paris Club debt relief. This may well further accelerate the economy's contraction.

Hence, while there have been substantial changes initiated in the underlying policy and institutional framework since the economic downturn following 1985, these changes have not prevented further deterioration in the economy. In addition, following pressures for democratization some political reform has taken place, but a disputed presidential election in Octo-

ber 1992 has resulted in considerable concern about political stability and respect for human rights. The situation at present may appropriately be described as one of continuing economic and political crisis.

II. CONSTRAINTS TO SUSTAINED AGRICULTURAL GROWTH AND DEVELOPMENT

A. Classes of Constraints

The overriding challenge for Cameroonian agriculture is to adjust to a fundamentally different and less congenial economic situation than that which existed in the first half of the 1980s, and the constraints identified here are those factors that inhibit success in meeting that challenge. Some of the constraints obstructing agricultural growth and development are due to the continued existence of unsustainable institutions that grew up during the boom years. Others are bottlenecks or inefficiencies which existed before and were tolerable when the economic environment was favorable, but are no longer so since the crisis set in.⁴

Official policy is to encourage adjustments that would achieve a lowering of real costs of production and marketing and a raising of prices for import substitutes and exports. Costs are to be lowered through increased economic efficiency while price increases can be sought for import substitutes through equalization funds. More favorable prices for exports can be pursued through increasing quality of existing exports or diversifying into more buoyant markets.

In what follows, constraints standing in the way of lower costs will be examined first, and then those affecting market prospects and therefore output prices. Attention will then be turned to the management of natural resources for sustained growth. Finally, consideration will be given to constraints affecting government services important for agricultural development.

B. Impediments to Lower Costs of Production

The agricultural sector includes both smallholders and large scale agribusinesses, producers of crops and livestock, and those who process these items. The first group of factors constraining the reduction of costs applies mainly to smallholders, the second mainly to agribusiness.

1. Smallholders

Problems in technology development and transfer. Costs of production are heavily dependent on productivity and the first three constraints adversely affect this variable. Survey data have shown stagnating production and yields of starchy crops such as cassava

⁴The focus on both categories of constraints is all the more concentrated because one policy option that has been resorted to by other countries in Cameroon's situation, that of nominal devaluation of the currency, is ruled out here. Cameroon, as only one of 13 members of the West and Central Africa CFA franc zones, may not act unilaterally. Further, the government has stated clearly that it opposes any collective decision involving nominal devaluation.

and plantains. This may reflect the fact that, due to population pressure, increasingly marginal land is being brought into production and at the same time land which has been farmed for a long time is losing its natural fertility. Some of the marginal land is on steep slopes where soil conservation techniques are obviously not being applied. This situation translates into a need for more adaptive research and extension. Linkage between the two has been a perennial issue owing to their location in two separate ministries (MINAGRI and MINRST), complicating the coordination of research objectives and the extending of research results. The testing and liaison unit (TLU) approach to outreach has been successful but only functions in a limited number of sites. In addition, there are problems of a lack of extension on environmental issues (e.g. soil management, pesticide use) and of organization and financing, which are discussed below under the headings of constraints affecting natural resources management and government services.

Inadequate input distribution systems. Productivity would be higher if the use of purchased inputs such as chemical fertilizers, pesticides, improved seeds, and veterinary supplies were more widespread than it is. One reason why it is not is that in the past these kinds of inputs have been purchased chiefly for use on traditional export crops -- fertilizer for coffee and cotton, pesticides for those two crops plus cocoa -- and as the profitability of producing these has fallen or disappeared, farmers have greatly cut back their purchases of inputs for them. Fertilizer, pesticides and improved seeds or plant material can pay off in the production of food crops, but farmers have generally relied mainly on the natural fertility of the soil when growing them.

There is also a problem on the supply side, in that it is not well developed. This constraint is due to the dismantling of most of the state run system that distributed seeds, fertilizer, pesticides and, in livestock, veterinary supplies, and the fact that the private sector has not yet developed sufficiently to fill the gap. What functions best, and normally develops in a free market, is a large number of competitive and widely dispersed small scale distributors, but when the state held a monopoly and large subsidies drastically cut prices to farmers or made the goods free, there was simply no way that private sector operators could compete.

Now possibilities are opening up, but it will take time for private businessmen to establish themselves. One reason is that the field is not yet entirely open. SODECAO still functions in parts of the southern provinces, though on a reduced scale and with diminishing subsidies on pesticides. A greater challenge exists in the North and Far North provinces where SODECOTON is still an overwhelming presence.

Limited access to credit and overlapping land tenure systems. There is always a question as to how serious a constraint credit is in smallholder agriculture. The fall in demand for inputs just mentioned may also have lessened the need for credit for some farmers, but others, wanting to diversify or increase output from a fixed amount of land, are likely to want funds. In any case, it is certainly clear that few farmers have access to credit from any but informal sources. Two banks aimed at rural sector lending have been set up. The first, FONADER, succumbed to the burden of bad debts it rapidly accumulated under gross mismanagement. The Crédit Agricole Camerounais, CAC, has been set up with German assistance to replace it and, under very conservative management, is determined not to meet the same fate.

Unfortunately the difficulty of securing adequate collateral impedes the efforts of any bank, CAC included, to reach ordinary farmers. In the face of a complex land tenure situation mixing both traditional and modern governance and a legal system subject to long delays and uncertainties, banks are unwilling to accept land as collateral. About the only sure form of collateral the banks are prepared to accept is an account containing an amount equal to 100% of the amount of the loan, an obvious obstacle to most potential borrowers. This situation is compensated for to some degree by the large variety of flourishing informal channels which allow almost any Cameroonian with some kind of income to borrow funds. However, interest rates are often very high and the sums available not large.

Unclear rights to land result in another kind of difficulty: disputes between farmers and livestock raisers over who has the right to determine whether the land should be used for crops or pasture. They are only important in areas such as Northwest province where these two groups come into contact with one another, but where they exist they are serious and disruptive. With guidelines on how to handle these situations unclear, officials asked to settle the disputes have wide latitude, resulting in considerable inconsistency and scope for rent seeking. In the past when population was much less dense farmers and cattle raisers could keep away from one another, but as pressure on the land grows, so will these disputes.

Inadequate roads. There are excellent roads connecting Yaounde with Douala, Limbe and Buea, Kribi (via Edea), Ebolowa, Sangmelima, and Bafoussam (see Figure 4). Other very good roads are being built between Yaounde and Ayos, and Bafoussam and Foumban. There are adequate roads between Ngaoundere and Kousseri, Douala and Bafoussam, Buea and Kumba, and Bafoussam and Bamenda. Some of the latter will soon become bottlenecks if not repaired and widened. There is a lack of feeder roads into the hinterlands of all these major towns, but the most serious problem is that road communications between the southern seven and northern three provinces are very poor indeed. This may soon be remedied, as a study is being carried out for extending the road from Foumban to Tibati via Banyo, but until it is the cost of transporting agricultural produce between the north and south of the country is considerable. Better road links between southern Cameroon and Nigeria and Gabon also have the potential for increasing trade.

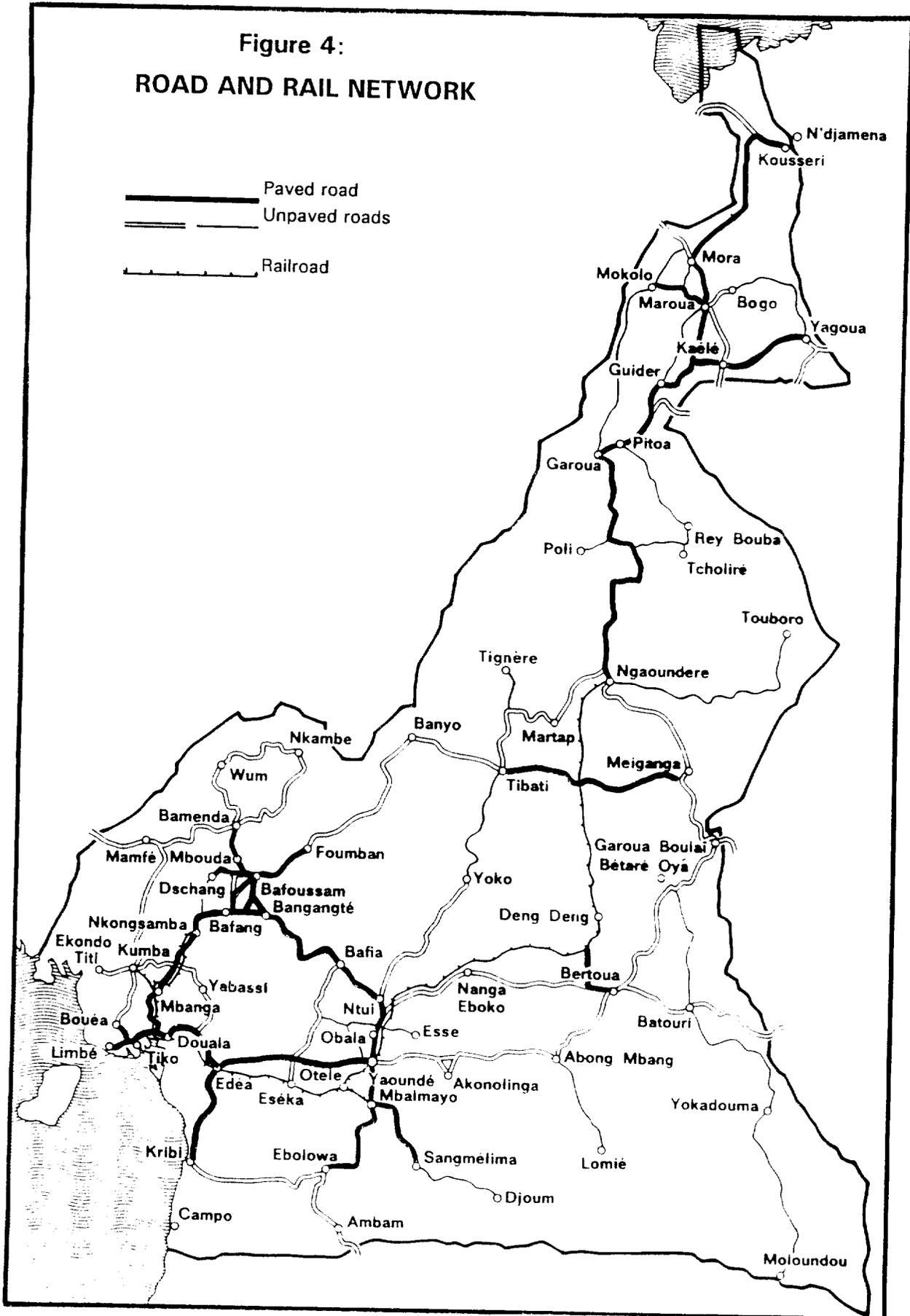
Administrative barriers. It is well known that the transport of both passengers and cargo is subject to informal tolls levied by gendarmes, police and customs officials for their personal benefit. Several of these tolls can be exacted on a single trip, the accumulated effect of which can be to raise significantly the cost of moving food from producers to consumers.⁵

2. Agribusiness

Agribusiness firms are generally sufficiently well organized to be able to obtain the technical know-how and the inputs they need. Credit may be a problem (see below), and **poor roads and administrative barriers** may also hinder agribusiness firms, depending on

⁵ It was a condition of the first installment of the World Bank SAL that such practices stop and, in fact, a presidential order to this effect went out in April 1989. Where there had been barriers marked by oil drums, these were taken down and the stopping of traffic may have diminished for a time, but not for long.

Figure 4:
ROAD AND RAIL NETWORK



Source: Criaud, Jean, "Géographie du Cameroun et de l'Afrique", Les Classiques Africains, Issy les Moulineaux, 1987. Adapted.

13-9

their location. In addition, the following are constraints which are particularly applicable to these enterprises.

Discouraging regulatory environment. There is a plethora of regulations which even small businesses must adhere to, including licenses, taxes, price and margin controls and customs regulations. The MAPS Private Sector Diagnosis carried out in early 1990 as well as a similar study by Winstel Consulting in 1992 made it clear that private businesses of all kinds regarded these as collectively the single most important factor affecting the development and growth of the private sector in Cameroon. They take time to fulfill and the inspectors who enforce them are sometimes more interested in private gain than public interest. There have been moves to improve the situation with a new investment code, a new labor code and the Free Trade Zone. The FTZ, where many of these regulations are suspended is, however, only for export-oriented firms and the new codes are not as simple or as liberal as might have been hoped. The cost of doing business in Cameroon is, therefore, still higher than many businessmen regard as reasonable.

Inadequacies of the banking system. Access to credit by farmers was mentioned above. For processing industries there are difficulties also. The banking system in Cameroon is still rebuilding after a severe liquidity crisis sustained in 1988 and 1989. This was a consequence of the fall in export commodity prices, causing a corresponding decline in the revenue of government and parastatal companies, and preventing them from paying their debts to the private sector. A chain reaction and bank failures followed. A good deal of consolidation and reorganization has taken place, mainly with the support of France, but the process is not complete and in the current somber economic situation confidence is not yet high. The slow and uncertain functioning of the courts is a problem here also. Small businesses therefore commonly remain unattractive prospects to banks. For them as for farmers there are informal channels but, once again, at high cost, for small amounts and for short duration.

A lack of business training. Recent years would have been hard under any circumstances, with their difficult economic conditions thrust on the country by international markets. Adjustment would have been easier, however, if the understanding of how businesses should behave in order to survive, or even grow, had been more widespread. The belief is frequently encountered, for example, that when demand is depressed margins should be raised so that the same amount of money can be made on a smaller number of transactions. There is also a common failure to grasp the fact that sales depend on the goodwill of customers and that this must be earned by the business. Understanding of these issues is needed along with training in the formal techniques of marketing, accounting and financial management, and business administration -- at all levels from the MBA to the artisanal.

The high costs of parastatal producers of exports and import substitutes. Inflated costs have been due to overly large and top heavy labor forces, poorly maintained plant, inadequate financial controls, and the allocation to these enterprises of the costs of infrastructure such as roads, clinics, housing and schools. For these firms an important part of the structural adjustment program was to establish performance contracts between their managements and the government, according to which the government agrees to such matters as writing off of debt owed to the state in return for labor force reductions and like changes. These measures have had an impact, though they have not so far been able to lower costs as far as needed in most cases. In the case of rice production a problem beyond the capacity

of management to resolve is the location of the bulk of production in the Far North, where heavy transport costs separate the farmers from the largest market in the south.

C. Constraints Affecting Market Prospects

Poor market information: a) **Domestic markets.** Although traders are aware which areas generally enjoy food surpluses and which suffer shortages, they have no way of knowing at any given moment what the *current* demand/supply situations are in different places. In response to this need, a joint GRC/World Bank/FAO project, financed by Japan, has begun to establish a system, as part of a national early warning system, which will collect and broadcast current food prices over the radio in certain local markets, beginning in the North, Far North, Center and Southern provinces. Until a system of this kind, effectively run, covers the entire country, lack of information on food markets will be a problem.

b) **Export markets overseas.** Cameroon is only one of many countries looking for new export markets in Europe where the field is crowded and very competitive. Detailed information about demand is necessary: qualities of produce, packaging, and timing. It is no accident that some of the most obvious successes so far, in bananas and green beans, have been achieved by foreign led firms with close links to the markets. These kinds of links must be reproduced by Cameroonian led companies for many different markets if diversification is to make up for the losses in traditional exports.

c) **Export markets in neighboring countries.** The existence UDEAC, a regional market of CFA zone countries, although it excludes Nigeria, means that administrative barriers are not much more severe than they are for internal trade. However, there are obstacles to increasing commerce with Cameroon's neighbors. With the exception of Gabon the CFA countries are very poor and their markets small. As for Nigeria, that country has considerably devalued its currency with the result that, while there is a good deal of trade, it is chiefly in Nigeria's favor. Given these considerations, the government's focus up to now has been on Gabon, with the first of a series of "marchés frontaliers" being established at Ambam in the Southern province, near the border with both Gabon and Equatorial Guinea, with the support of the E.C.

Inadequate performance of the equalization funds. Whether production of import substitute crops could compete with foreign produce, under conditions of sound management and a well adjusted real effective exchange rate, depends on the crop and the person giving the opinion. So far state enterprises producing import substitutes have enjoyed neither of these two conditions. A well-functioning equalization fund can compensate both for dumping and a misaligned exchange rate simply by adding an appropriately varying tax to imports. The difficulty is to make the fund perform well, in particular to enforce payment by importers who, all too often, have the means to circumvent the proper import procedures. This is particularly evident in the case of rice, where dumping may really be an issue and the price per kilo in the retail markets cannot possibly include the proper tariffs.

Marketing channels for coffee and cocoa. Three or more years ago, constraints in coffee and cocoa marketing were among the most critical of all. Now they are much altered and, hopefully, reduced. While the changes are typical of what structural adjustment prescribes, it would be useful to assess their impact rather than simply assume it to have been entirely beneficial.

There were two problems with the old system. One was that exporting was monopolized by a parastatal, the National Produce Marketing Board (ONCPB), with the exception of arabica in Western province which was exported by a cooperative (UCCAO). The ONCPB has been abolished and, though there is a new state controlled entity, the ONCC (Office National pour le Café et le Cacao), it exists mainly to oversee the quality of exports and to represent Cameroon in the international cocoa and coffee organizations. Exporting is now in the hands of private firms and cooperatives many of which previously had a role in coffee and cocoa marketing, but only as agents for the ONCPB. Under the old system they operated in designated areas and were paid for their services through noncompetitive fixed fees set in negotiation with the ONCPB; now they can operate anywhere and are subject to competition among themselves.

The other problem with the previous system was that producer prices were officially set for coffee and cocoa -- along with rice and cotton, the only crops for which producer prices have been set in Cameroon. The constraint for coffee and cocoa was that the official prices were too low when f.o.b. prices were high and went largely unpaid for years when f.o.b. prices fell. Official prices are still set, except for arabica coffee, but they are meant to take into account the expected level of f.o.b. prices. A third change is that a new law governing cooperatives has been enacted to allow them autonomy from government, something they have not enjoyed before. But this innovation has not yet had time to take effect. The others have, and the question is how well producers are being served by them.

D. Natural Resources and Sustainable Development

Cameroon forest resources occupy over 55 percent of the national territory. The timber sector represented 4% of GDP in 1991 and generated FCFA 32 billion worth of exports and an estimated 20,000 jobs. Cameroon's forest resources and ecosystems are being degraded rapidly through exploitative logging, demands for fuel wood and charcoal, clearing for agricultural activities and other uses, fires and poaching. Deforestation rates are estimated at 150,000 hectares per year. Shifting cultivation, whereby a new piece of land is cleared every year through slash and burn farming, is considered the greatest single cause of deforestation (75-95,000 hectares annually). It is estimated that perhaps a million hectares of forest have been lost to agriculture during the past decade alone. The harvesting rate of forests is estimated at 100 times higher than reforestation, which means that the forests are likely to disappear at a growing pace within the foreseeable future if nothing is done to restore the balance.

Outside the rainforest, deforestation for tse-tse fly eradication in the Adamaoua province and repeated burning of the savanna to obtain more and better quality grazing for livestock have destroyed the natural bush-savanna ecosystem. In the densely populated Far North, deforestation for fuel wood and urban sprawl have denuded large halos around towns. Fuel wood consumption is projected to double by the year 2,000. In West province, also heavily populated, pressure on resources has resulted in a loss of mountain flora and fauna, soil erosion, and a serious degradation of fragile ecosystems.

Poaching and unregulated hunting are a major threat to Cameroon's wildlife. It is a lucrative occupation, which attracts local hunters and cross-border raiders from Chad and Nigeria. Cameroon contains populations of over 40 species identified as globally threatened throughout their range. These include 18 mammals, 16 birds and 5 reptiles. Threatened

species of great international and U.S.congressional concern include the black rhinoceros, the western lowland gorilla and the African elephant, both the savanna and forest subspecies.

In the more densely populated areas, the traditional fallow period to restore soil fertility has been reduced or in some cases eliminated completely, due to increased pressures on land. This has led to faster depletion of soil fertility and increases in soil erosion. The burning of all crop residues in the dry season, a mandatory practice in cotton growing areas for phytosanitary reasons, also damages soil texture and soil organic matter is destroyed. With declining soil fertility and the unavailability of improved seeds, planting material, chemical fertilizers and improved cultural practices, including agroforestry, many farmers resort to extensification of agricultural production whereby more land is brought under production at declining average yields.

Thus the productivity of Cameroon's agricultural sector is seriously threatened by the accelerating degradation of the nation's forest, soil and water resources. The effects are more acute in some areas of the country than others: e.g. loss of timber resources in the south and east, soil erosion in the west and desertification in the north, but in each case the impact is of national importance. While the constraints mentioned prior to this point are a break on current economic growth, the focus here is on factors that will undermine future growth if they are not removed.

Where the stress on natural resources is due to rapid population growth, the damage is the result of the individually unimportant but collectively significant actions of large numbers of small operators. On the other hand, the large profits made from timber exports benefit the nation's balance of payments and a small number of large scale operators. These profits are especially hard to resist given the collapse in income available from traditional coffee and cocoa exports.

Whether the operators are small or large, what discourages rational management is that the benefit, sustainable growth, is returned only in the medium and long term while the cost is immediate in terms of produce or profits foregone right now. This means that free market forces, which weigh current benefits and costs more heavily than those obtained in the future, cannot be left to their own devices but must be modified and controlled by government. Where the cause of environmental damage is population pressure, possible solutions include research into and extension of soil conservation measures that smallholders can realistically adopt, fish farming and small scale livestock raising to provide alternative sources of animal protein, the creation of off-farm jobs, the establishment of woodlots for firewood, and improved sanitation services. Where the motive behind resource depletion is profits the solution requires not only that clear regulations providing incentives for conservation be put in place and enforced, but that public scrutiny into enforcement be welcomed.

The following are constraints making these kinds of solution more difficult or blocking them. Cameroon has already embarked on the task of confronting them by establishing a Ministry of Environment and Forests and inviting a multi-disciplinary mission to recommend how best to set about establishing and implementing an environmental policy. The mission's report did not explicitly list constraints, but the following are implicit in its report.

Lack of a comprehensive environmental policy on resource management and a corresponding body of laws and regulations to enforce it. Up to now regulations and policies on environmental matters have been developed on an ad hoc basis. A major step

forward has taken place with the development of a comprehensive "Nouvelle Politique Forestière" (though it does not yet have official approval from the government), but an overall policy dealing with environmental issues in general is still missing. Until this is done there will be gaps and inconsistencies which will allow further degradation to take place and hamper the agencies trying to control it. It was for this reason that the multi-donor mission's first recommendation was that a National Environmental Action Plan be developed.

Inadequate powers of policy and legal enforcement. If regulations are to be effective they must be enforced. As the incentives to pursue environmentally damaging activities are considerable, the powers needed to combat them must also be substantial. This means intervention not only in the activities of the private sector but also parastatal entities and ministries, for environmental issues are found within the domains of several of the latter (primarily MINEF, MINAGRI, MINEPIA, MINPAT, MINDIC and MINRST, but several others also). At present the responsibilities for enforcement are not sufficiently clear and the means to implement them scarce or non-existent.

Lack of environmental awareness and training. (a) Awareness. Powers of enforcement are more effective when there is a clear understanding among the general public, private sector businesses and government ministries of the benefits to be derived from the laws and regulations concerned. This understanding will have to be acquired for the most part through the public media, especially radio and television, and through the extension services. At present it is evident that environmental concerns, including soil conservation, grain storage, alternative sources of protein, woodlot management and proper use of pesticides, are not currently an important part of the extension message.

(b) Training. Knowledge of how to deal with environmental issues is lacking among two quite different groups of people: extension agents who have to broaden their message to emphasize the elements mentioned in the previous paragraph, and government personnel charged with drawing up and implementing policy and regulations. Part of the knowledge the latter will need is how to handle the kind of inter-jurisdictional issues that environmental problems tend to provoke.

Lack of research and data and coordination in efforts to improve them. There is technical knowledge available of the kind needed by extension agents and civil servants on how to deal with environmental problems. This is not to say that it cannot be improved. In particular, attention needs to be paid not only to what measures would be technically adequate to take care of the problems, but also to what measures are most readily adopted by rural people and modern private enterprises. Furthermore, it is certain that there are deficiencies in the understanding of such issues as the dynamics of forest environments. Research of this kind is going on, for example, at Nkolbisson, Mbalmayo, Korup, and near Kribi (sponsored by a Dutch agency), but coordination is ad hoc and inadequate. Likewise, there are data collection efforts, including potentially elaborate GIS projects involving remote sensing which appear to be occurring in more than one place in an uncoordinated manner.

Lack of coordination among donors and the government. Collaboration among donors in this area is going to be necessary if there is to be a comprehensive approach to environmental problems. A good start was made with the UNDP coordinated multi-donor mission, but since then contacts among donors and the government have lapsed back into their usual sporadic and ad hoc mode. If coordination is not adequate what will be lost is not only consistency and comprehensiveness but also a certain amount of motivation to

develop and implement the necessary policies and programs. As already mentioned, the status quo holds considerable benefits for those affected and sufficient countervailing incentives needed to overcome them are less likely to be forthcoming in the absence of concerted action by donors and government.

E. Constraints Affecting Government Services

Lack of funds. The number of government employees grew very rapidly during the boom years but when revenues fell it was difficult to reduce their numbers in like proportion. Expenditure was reduced instead by cutting back on non-salary operating costs to the point where these constitute less than 10% of the total operating budget for many or most ministries. This being the case, many government operations have either virtually ceased or depended for their continuation on funds from donors.

The situation has become worse as the government has failed to keep up salary payments for certain categories of workers. Those especially hard hit are those who work for institutions or parastatal organizations whose financial management is separate from that of the civil service, including the University Center at Dschang, the Institute for Agricultural Research and the Institute of Zootechnical and Veterinary Research. Teaching at the former has temporarily ceased and research is only carried out at any of the three if it is fully funded (apart from salaries) by donors. A study has been carried out of IRA and IRZV to determine what can be done to provide them with some financial independence, but there are important public good elements in the research services these entities should be providing which limit the extent to which they can be privatized. For example, private companies are prepared to develop improved seeds if they can be hybrids but not if they are synthetic or composite, because the former must be bought by farmers each year and the latter not. For the same reason, however, farmers may much more readily adopt the synthetics or composites.

Lack of civil service reform. There are a good many well-trained, competent and hard working members of the civil service, but they are not always able to function as they would wish, not only because they do not have adequate operating funds, but also because they often have to contend with other members of staff who do not work effectively. Performance on the job appears to be a more important criterion for advancement than had previously been the case, but directors have limited recourse to encourage good performance. Since 1989 at least there has been talk of civil service reform being carried out as part of the conditionality attached to the third installment of the World Bank SAL, but so far there is no evidence of this reform becoming reality, and as noted above the third installment has not yet been approved.

The slow pace of liberalization. There is no mistaking the fact that very important steps towards liberalization have been taken. The state organization which monopolized coffee and cocoa marketing, the ONCPB, has been dissolved and another institution with a vastly reduced role, the ONCC, has taken its place. High cost parastatal producers of crops have been wound up or restructured, and FONADER, the former agricultural bank, has ceased to be, as has MIDEVIV which was responsible among other things for the production and distribution of improved seeds. (The Pioneer seed company from the United States is endeavoring to establish itself in the latter's stead, with emphasis on hybrid maize and vegetable seeds). Fertilizer procurement and distribution, which used to be entirely a state operation, is now largely private. There are new investment and labor codes and a new

cooperative law. In the livestock sector the privatization of veterinary services is official policy.

However, these changes have not been made easily or quickly. Not only have many jobs been lost, which is quite a proper concern, but the retraction of government from the actively interventionist role has meant the loss of power and influence by the individuals who exercised this role. Their incentive to resist the changes has been increased by the fact that prospects in the private sector are limited as long as economic growth is sluggish. Reform is, therefore, caught in something of a bind: it is necessary if the economy is to begin to grow again, but in the absence of growth resistance to reform is strong. Finally, support within the GRC for liberalization is by no means universal, and some officials still believe in the desirability of a strong interventionist role by the state.

F. Government Services Affected

Research. The autonomy of the two research organizations (IRA and IRZV), each with its own budget, is an advantage from the management point of view but a decided disadvantage in times when there is an acute shortage of government funds. The institutions are unable to function effectively without money to finance experiments, and since the severe GRC cuts in non-salary expenditures they have been entirely dependent on donors in order to keep operating. Recently even this precarious existence has been shaken by arrears in salary payments, which donors in Cameroon have been unwilling to make up. Encouraging greater financial autonomy through contract research (i.e., research carried out for and financed by private enterprise) has possibilities but this option is limited. Further, it should be emphasized that there is an important public goods element to agricultural research, which means that even where, as in the U.S. or Western Europe, private funding of research is well developed, the existence of spillover benefits will cause it to be inadequate and some public funding to be necessary.

Extension. The common criticism of agricultural extension in Cameroon is that it has been fragmented. The first division has been between crops and livestock. Further segmentation occurred in crops when the government, with donor support, set up integrated rural development projects to serve particular areas of the country, and these projects were given responsibility for extension. In several cases the project had originally been concerned with one crop but it was subsequently given responsibility for all crops (SODECOTON and SODECAO were notable examples). MINAGRI's responsibility for extension through the Department of Agriculture became a residual one, for those areas not covered by projects.

Here, the economic crisis has improved the situation, in this case by reducing fragmentation. Several integrated development projects have been wound up and where a parastatal is particularly concerned with one crop, it now focuses on that crop alone. MINAGRI's responsibilities have therefore been recovering, and the World Bank has been providing logistical support and training to establish its training and visit system. The difficulty is that where the T and V system has not been established there are no funds to allow extension agents to carry on their work. And here, as in research, private support is feasible only where private benefits can be reaped. This is possible where there is a single marketing channel, a situation that exists now only for cotton.

Higher education. The lack of public funds has resulted in a suspension of teaching at the University Center at Dschang and hence of USAID support. It has been university policy to begin to seek the recruitment of fee paying students, not only in Cameroon but from neighboring countries. However, complete privatization is not a practical solution for Dschang because of the public goods aspect of university training and research in agriculture.

Data collection and publication. In 1984 the government carried out its first large scale agricultural survey since 1972. It was set up with the technical and financial assistance of USAID but the government itself contributed massively: some FCFA 300 million per year, excluding salary costs. This contribution has since been eliminated, and although MINAGRI now has the technical capability to carry on the work itself, the whole enterprise would cease operation without donor funding. Agricultural data would then revert to being estimates made with varying degrees of seriousness by MINAGRI staff in the provinces. The problem with such data is that they can actually be worse than none at all. This occurs when, as is bound to happen from time to time, they fail to reflect reality but government and donors, desperate to cite figures, pick up on the numbers and tailor programs as if they were accurate. In principle data collection and publication can be privatized, but because data are public goods funding at least must be public. Also the fact is that at the moment expertise in this area in Cameroon, which is not inconsiderable, resides in the government.

Agricultural policy. All of the above are services of direct benefit to the private sector as well as being of use to the government. A function that the government must carry out for itself is the development of agricultural policy. The constraint here is that responsibility for policy making is to be found in several different ministries and in different departments within those ministries. As long as crops and livestock are taken care of by separate ministries there is no objection to policy making being separated also. More serious is the fact that MINDIC rather than MINAGRI and MINEPIA is responsible for setting prices for those few items where this is still done and supervises certain important agricultural parastatals, such as SODECOTON. Both crops and livestock research is under MINRST. Policy responsibilities for agriculture are found in two MINAGRI departments, DEAPA and DPA, as well as the Sub-Department of Rural Development in MINPAT. Inter-sectoral coordination is allotted both to MINPAT and the Prime Minister's office. At the very least this fragmentation disrupts information flows and it can result in disagreement over policy responsibilities to the detriment of coherent programs.

III. MAJOR EFFORTS TO PROMOTE SUSTAINED AGRICULTURAL SECTOR GROWTH AND DEVELOPMENT

A. The Government of Cameroon

Recent changes in government policy. The sixth plan covering the period 1986-1991 provided guidelines for sustained agricultural sector growth and development under a favorable economic and investment climate as had prevailed in the first half of the 1980s. The plan could not foresee and take into account the coming economic crisis and recession of the late 1980s and thus became obsolete very quickly. As the GRC investment budget contracted and virtually disappeared, the planning process became stalled and preparations for a follow-on seventh plan were not pursued. The GRC now prepares rolling public investment programs (PIP) but disbursements under this budget have been far from consistently

made. Crisis management, meeting the payroll of public servants and the abolition or restructuring of public enterprises, overtake medium and long term planning. At the same time, democratization and the accompanying political debate overshadow the normal economic policy making process. and dominate the public discussion.

Because of the drastically changed economic outlook and GRC budgetary situation, it is now accepted that economic growth will not come from the public sector as in the past but from market liberalization and private sector initiatives. This drastic break with the past has already resulted in important policy and regulatory reform. Major changes in agriculture have already occurred through restructuring the marketing of fertilizers and coffee and cocoa and banana exports, and several new policy documents pave the way for further liberalization: a new Investment Code, new industrial Free Trade Zones, a new Labor Code, new fiscal and tariff structures, including reduced export taxation and concomitant reduced input subsidies, a proposed uniform UDEAC fiscal code, a new cooperative law, a New Agriculture Policy (NAP), a proposed New Forestry Policy (NFP), deregulation of prices and new import and export regulations. In response to the serious degradation of the natural resources in Cameroon, the initiative has been taken to develop and implement a National Environmental Action Plan (NEAP), the aim of which is to improve knowledge and management of the environment and natural resources as a key to sustained economic growth in Cameroon. In all of this activity the government has solicited or welcomed donor assistance to comment on or help draft the policy documents as well as finance the actual process of reform and liberalization.

The New Agricultural Policy. The NAP starts with the recognition that the past agricultural policy is no longer adapted to the needs for a more competitive and export-oriented agriculture. The objectives of the NAP are to: modernize the production base; restructure the major productive sub-sectors; promote and diversify exports; promote industries processing agricultural products; and strengthen food security. The first two objectives can be associated chiefly (though not exclusively) with cost reduction and the third and fourth with the search for better markets and prices for outputs. The food security objective in the NAP is an important distributional consideration, particularly with respect to the Far North where conditions are Sahelian but population pressure is substantial. There is also great pressure on the good land in some other regions, particularly in the West province. Regional food imbalances must therefore be met through interregional trade, which means that economic efficiency and market development are again important.

With regard to livestock, GRC objectives (as summarized in the World Bank's Third Livestock Project) are to: improve the efficiency of the traditional and emerging modern livestock production sectors; promote the role of the private sector in provision of services to the producers; make parastatal enterprises profitable and competitive; and strengthen the planning and extension services of MINEPIA. All of these objectives refer more to sectoral efficiency than markets, for livestock raisers have not suffered the catastrophic fall in their markets as has occurred with crops.

The New Forestry Policy. Cameroon was the first African country to adopt a tropical forestry action plan. The NFP document, drawn up by the newly created Ministry of Environment and Forests has yet to be approved by the GRC. It consists of a comprehensive statement of the objectives and strategies to be pursued in general terms, and a medium term

(5 years) action plan to implement the stated forestry policies. The general aim is to develop and sustain the economic, ecological and social functions of the forest through an integrated management plan which ensures sustainable use of forest resources and ecosystems.

The NFP comprises four main orientations:

- the protection of forest resources in Cameroon as part of global environmental and biodiversity preservation;
- the integration of forest resources in rural development actions in order to raise rural living standards and enhance rural participation in resource conservation;
- the exploitation of forest resources in order to contribute to the growth of GDP while at the same time preserving the productive resource base;
- the stimulation of the forestry sector through institutional development and participation of all actors in the management of the sector.

Central in the NFP is forestry management (aménagement forestier) including zoning of forests and land use policies. However, main responsibility for land use policies (aménagement du territoire) remains with the Ministry of Plan and Regional Development (MINPAT). Two main areas are defined in the forestry domain: permanent forests, where land is to remain permanently under forests, and multipurpose forests, which will allow for their use in agriculture, livestock production, recreation and other areas as needed by local communities. It is intended to grant long term logging licenses in the permanent forests whereby grantees assume responsibilities for the restoration and conservation of the forest resources. The objective is to conserve under permanent forests at least 30% of the national territory.

By the year 2000, exports of logs will be prohibited: this concerns the precious hardwoods which now make up most of the forestry exports. Through fiscal measures it is intended to stimulate local processing of such high value and other timber in the free trade zones. At the same time, less precious tropical wood species which are presently not traded will be allowed for export as logs. Thus, forest resource conservation and exploitation will be achieved by a combination of preventive actions, economic incentives and repressive measures. A study has been completed, financed by Canada, of fiscal measures in forestry policy.

With respect to sustainable logging practices, several pilot forest management projects are being implemented with support from the U.K. at the forest research station at Mbalmayo and near the botanical garden at Limbe, from Canada in two pilot forests, France at Dimako, and the Netherlands via the Tropenbos Foundation at the Wijma forest concession at Bipindi near Kribi. It is intended to involve local communities in participative forest management, including the promotion of agroforestry practices. Main institutional support at the newly created Ministry of the Environment and Forests is provided by Canada.

B. USAID

Over the past 10-15 years, USAID/Cameroon has placed major emphasis on strengthening the capacity of several key GRC institutions and NGOs to provide essential services to the agricultural and rural sectors. Substantial assistance has been provided to reinforce sector planning and policy development, food crop technology development and dissemination, human resource development, the privatization of agricultural factor and product markets, and the provision of financial services. USAID projects have considerably reinforced the institutional capabilities of the national agricultural research institution (IRA) in cereals, grain legumes and roots and tubers research and outreach; the University Center of Dschang in agricultural sector analysis, research, training and outreach; and the planning and policy development departments of several ministries. Large numbers of scientists, analysts, and university faculty have received long-term graduate degree training in the United States. Essential research and educational facilities have been constructed, equipped and made operational. Rural savings and credit cooperatives development constituted a key area of USAID support to NGOs for 17 years.

As the GRC moved progressively toward market liberalization along with the promotion of private sector initiatives in the mid to late 1980s, USAID's program for the agricultural sector evolved accordingly. Several important private sector oriented non-project assistance (NPA) programs were launched. These included the privatization of fertilizer importation and distribution, along with the gradual elimination of state subsidies, the privatization of arabica coffee marketing, and the establishment of a free trade zone regime as a means of increasing employment, diversifying production, and increasing exports. In 1992 USAID and the GRC also collaborated in the transfer of a major food crop seed production/processing facility to an international private sector company (Pioneer).

USAID has supported several initiatives, mainly through NGOs/PVOs, to enhance public awareness and knowledge of environmental issues, develop better understanding of select ecosystems, and promote adoption of on-farm natural resources management techniques. USAID also supported activities in the livestock sub-sector through two separate projects, though without the hoped for impact.

Emphasis and program focus continues to be on areas where the U.S. has a comparative advantage and can assume a role as an influential donor. These include: policy reform, food crop research and outreach, human resource development, financial services, factor and product market development and private sector development in addition to a new major emphasis on agribusiness and natural resources conservation.

Current USAID funding through fiscal year 1992 is \$58.4 million for improved conditions for private sector trade, including CAPP, FSSRP, PRAMS, PREPS and the OIC Vocational Training Center, and \$48.7 million for improved agricultural productivity and natural resources utilization, comprising NCRE, ROTREP, AEP, and conservation of biological diversity and forest resources management (\$100,000 for the last two). The total obligation is \$139.4 million. Thus, improved conditions of private sector trade take up 41.9% and improved agricultural productivity and natural resources utilization 34.9% of USAID's portfolio in Cameroon, the remaining activities being increased access and use of primary health care, human resources development, and program development and support.

USAID/Cameroon's operating year budget for fiscal year 1993 is \$20 million, pending improvements in political and human rights. If this last condition is not met, funding will fall to \$6 million, as communicated to the GRC in a November 25, 1992 aide mémoire. Assuming the \$20 million per year operating budget is regained, the new agribusiness/private sector project/program will have an estimated total funding according of \$30 million NPA and \$5 million PA, and the new natural resources management project an estimated budget of \$10 million.

C. The World Bank

The World Bank is the largest donor in Cameroon with about one quarter of total donor commitments. Agriculture and rural development are major priority areas of investment. The Bank finances a large livestock sector development project (Third Livestock Project), with activities concentrated in the north of the country. A major aim of the project is to privatize veterinary services but not much progress has been made yet as the veterinary profession is well organized and constitutes a strong lobby in MINEPIA.

The most recent Bank projects have been an agricultural extension project started in 1990 and a food security project approved in 1991. The \$21 million extension project (PNVFA) is now nationwide and follows the training and visit model: major activities are the introduction of new varieties of crops as the IRA has a backlog of on-the-shelf technologies. The food security project (FIMAC), approved in 1991, supports community initiatives for rural development, being designed to contribute to the social dimensions of structural adjustment as a grass roots project building on local initiatives. The project is implemented by the Ministry of Agriculture and, as several local, regional and national commissions have to approve each action, is burdened by heavy administrative costs.

The latest Bank involvement with agricultural research was in 1986 (\$17.8 million) and a new, much larger project is being prepared (about \$30 million). However, SAP conditionalities have held up progress on it. Another project which is in the pipeline is an agricultural export promotion and diversification project. This agribusiness type project is being implemented through MINDIC together with support from Canada.

Regarding the environment, the Bank has joined other major donors in supporting preparatory studies for a major engagement under the leadership of UNDP. The investment part of the Global Environmental Facility will be under the responsibility of the Bank. A \$10 million grant is available and it has already been agreed to initiate protection and conservation activities in five reserves. The Bank is also active in forestry policy reform seeking to promote sustainable logging. Finally, it is now the policy of the Bank to incorporate environmental actions into each one of its projects in the agricultural sector.

It should be noted that since 1967, when the first Bank project in agriculture in Cameroon was approved, a total of 27 projects have been financed for over \$500 million, of which almost half have been for the support of export crops, palm oil and rice production, mainly through parastatals. Thus the large buildup of parastatal agricultural production and marketing in Cameroon is to some extent a legacy of past Bank actions, which makes it all the more difficult for the GRC to change course to emphasize private enterprise. The situation is made worse by the fact that most of the loan reimbursements on these parastatal investments are still overdue. This creates deep-seated misgivings among civil servants. GRC decision

makers and some donors. It is also noticeable over the last few years that the Bank's project activities have slowed down considerably as more aid now goes to support structural adjustment. This trend has contributed considerably to the decline in agricultural investment in Cameroon.

As the GRC did not meet deadlines for reimbursement of Bank debt, which is about one billion dollars, disbursements to Cameroon stopped last September. If no progress is made on meeting IMF/Bank conditionalities, including debt service, all Bank financed projects will be cut off. The outlook thus seems grim for short term Bank activities in the agricultural sector.

D. Other Multilateral Donors

The European Communities. The E.C. is a large donor in Cameroon, particularly through its support for the SAP and the STABEX fund which since 1987 has made up short-falls in the export revenue of cocoa and coffee. Since 1987, a total of 266 million ECU (\$346 million) has been paid, basically to pay arrears to farmers and buying agents which accumulated when export prices fell and to assist in the restructuring of the two subsectors. However, it is expected that STABEX income will fall to less than ten million ECU in 1992 because of the moving average reference mechanism for the calculation of the compensation. In principle, the STABEX funds are loans, to be repaid when export markets for the supported products become buoyant again, but in the past STABEX loan claims have been cancelled.

Regarding the latest Lomé IV convention, program priorities are in rural development, protection of the environment and the improvement of road infrastructure. These actions will absorb at least 60% of all E.C. resources in Cameroon. There will also be an important commodity import program as balance of payments support, generating counterpart funds to be used for public health, road maintenance and the restructuring of parastatal enterprises. The E.C. also supports major road projects (Yaounde-Ayos) and has provided drought relief aid in the Far North province.

The E.C. has been very active in the restructuring of the fertilizer sector (PSIE) with payments on the order of 17.42 million ECU (\$22.6 million) for the purchase and distribution of 54,000 MT of fertilizers for two cotton campaigns in the northern provinces (1989-90). This program was implemented through the parastatals SODECOTON (75 to 80%), SEMRY and the Benue project. A revolving fund has been created with the proceeds from the fertilizer sales. However, the GRC is in arrears with fertilizer subsidies for a total of FCFA 484 million; SEMRY has used FCFA 223 million for its own operations and FCFA 25 million were lost with default of the BCCC bank. It is now proposed that more flexibility be given to SODECOTON for fertilizer procurement, allowing it to bypass public procurement procedures as a private sector agent.

Major rural development projects are in the Benue valley in the North province, (budget: 25 million ECU or \$32.5 million), an integrated rural development project with a large infrastructure component designed to attract migrants from the overpopulated Far North province, and a project supporting irrigated rice production in the departments of Logone and Chari in the Far North province operated through the parastatal SEMRY (budget: 11.7 million

ECU or \$15.2 million). There is also a rural development project in the Northwest province, implemented through MIDENO in collaboration with IFAD and the German aid agency KFW. Training and visit extension is practiced in the project and it is reported to be very successful. In the past the project has financed the NWCA cooperatives through infrastructure, training and financial management and the supporting of debts left over from the ONCPB.

The E.C. also finances a number of "Pôles de Développement Rural" or rural development centers at Sa'a, Ntui, Sangmelima and Bafut (10.3 million ECU or \$13.4 million). This entails support to local community development type initiatives, with training, extension support, and infrastructure provision (schools, dispensaries, feeder roads, rural water supply). The E.C. supports the veterinary parastatal OPV, particularly with respect to eradication of bovine pest (budget 1.8 million ECU or \$2.34 million). However, regular veterinary drugs are also supplied to constitute a revolving fund. Finally, the E.C. supports many European NGOs in Cameroon.

Through its substantial support for parastatals in the past, the E.C. program has to some extent run counter to economic liberalization and private sector development in Cameroon. However, direct involvement with ministries is avoided, the Ministries of Agriculture and Plan acting only as overseers (tutelle). Thus, the E.C. steers away from institutional development at ministry level but strongly supports local, community based institutions. Support for resource conservation and environmental protection is directly in each of the projects, but not as a separate activity. In the past, there has been involvement with the Korup Park and there is support for the area around the Dja reserve in the South and East provinces.

The E.C. has financed the construction of one border market at Ambam, near the Gabonese border. Three more such markets are planned, one near Mamfe at the Nigerian border in the Southwest province and at two locations not yet decided. A total budget of FCFA 200 million is allocated for these food markets from the STABEX fund. The Ambam market is not yet functioning well as traders bypass the market for tax reasons. This is holding up construction of the remaining three markets.

FAO/UNDP. FAO/UNDP mainly provide technical assistance in agriculture and rural development in various areas: the national soils center, forestry studies and planning, cooperative education, striga control, food and nutritional planning, cooperative development, development of medium size agricultural enterprises, reduction of post harvest losses, seed production, a documentation center in the Ministry of Agriculture, and a national early warning system for food security. Marketing information is collected in the framework of the post harvest losses project and the early warning project. Such information is now broadcast via the radio. Through the "Africa 2000 Project", assistance is given to NGOs and community groups in agroforestry, fishing, land and natural resources management activities.

African Development Bank (and African Development Fund). Loans at low rates of interest have been provided for three major projects in agriculture and rural development: a cocoa development project through SODECAO, the Upper-Sanaga division of Center province and two rural development projects in the Northwest (MIDENO II) and Southwest provinces for a total of FCFA 21 billion. Up to now, the ADB has financed 26 projects and studies for a total of \$ 591 million. The transport sector accounts for 49% of financing,

followed by assistance to economic reform (25%), agriculture (17%), public utilities (4%), and the social sector (4%).

E. France

(a) **FAC (Fonds de l'Aide en Coopération)** is the main vehicle for grant money and the provision of technical assistance while the CFD (see below) is mainly for loan funding. Support for private sector development is via a subsidiary of CFD, PROPARCO.

The FAC is the main provider of technical assistance in Cameroon, primarily in education although the intention is to scale down in this area and provide more high level technical expertise at the Ministerial level. Main activities planned over the 1992-95 period in agriculture are support in the livestock sector, irrigated agriculture (rice), a study of the informal economy and the restructuring of the coffee and cocoa subsectors. A budget of \$4.7 million for rural development, \$15 million for agriculture and \$3.8 million for scientific research are planned for the 1992-95 period; (in French francs these sums are 25, 80 and 20 million respectively). In agricultural research, CIRAD plays a major role, particularly for export crops (coffee, cocoa, cotton) at IRA and in the north of Cameroon (Garoua project) for the diversification of cotton producing farms. For coffee and cocoa alone there are 6 CIRAD researchers at IRA.

There is also strong French support for the Regional (currently Cameroon and Congo) Research Center for Bananas and Plantains (CRBP) at Njombe⁶. The in-vitro laboratory was financed from STABEX funds, the plant pathology laboratory by FAC and the nematode laboratory by the World Bank. The Center is being financed by the E.C. from regional cooperation funds. The French are also active in statistics, particularly as they relate to the national accounts, in forestry management and forestry teaching and research at Dschang and in rural savings associations.

(b) **Caisse Française de Développement (CFD)** (previously the Caisse Centrale de Coopération Economique, CCCE). The CFD is the largest bilateral donor in Cameroon. CFD has in the past been the major source of external loan funding for the parastatal agro-development companies, such as SOCAPALM, SOFACAM, CAMDEV, SODECOTON, SEMRY, HEVECAM, SODECAO and recently, structural adjustment projects in the cocoa and coffee subsector. Some CFD loans are subsidized by grants from the FAC. The CFD is the main conduit of funds for the restructuring of public enterprises, which according to prevailing French views, usually means privatizing the management through performance based management contracts. The 1989-90 levels in support of structural adjustment for coffee and cocoa rehabilitation amounted to \$37.7 million (FF 200 million). Thus, the CFD is the main external actor in cocoa and coffee marketing reform. Finally, France has recently created a "Fonds de Conversion de Créance", a debt conversion scheme, managed by the CFD, for new investment projects listed in the PIP program in the areas of production, social welfare (education, health, training) and the environment.

⁶The African regional INIBAP office is now at Douala, having been moved from IITA in Nigeria.

F. Other Bilateral Donors

Germany. Germany is involved in buffer zone development around national parks and reserves and in the fight against desertification in the Far North Province through the integration of crop and livestock production. German assistance is also given to cooperatives marketing cocoa in the Center and South provinces, and also to the PAFSAT project in the Northwest province, which promotes sustainable farming systems and animal traction in agriculture. There is also a German component to the WWF Korup project. Germany also supports biological control of cassava pests in Cameroon through IITA.

In the past, GTZ supported the now defunct agricultural bank, FONADER. Now its major activity is with FONADER's replacement, the Crédit Agricole du Cameroun (CAC) created in 1990, which makes agricultural loans at market rates and under strict eligibility conditions. GTZ provides technical assistance while the German Development Agency (DEG) has a \$1.25 million (DM 2 million) or 17.5% share in the bank's capital and provides the Board of Managing Directors. This Board is made up of three experienced German banking professionals and has sufficient veto power and autonomy to manage the CAC. Apart from the headquarters at Yaounde, there are now three provincial offices in operation. CAC offers all the classic banking services plus specialized rural and agricultural sector financing. Conditions for loan applications are very strict and it is often extremely difficult for prospective borrowers to find land or other assets to satisfy collateral requirements.

It is intended that each provincial CAC establishment operate with autonomy and that CAC deal mainly with producer associations, cooperatives or other formal associations of farmers. The collection of savings is presently more important than the lending of credit. With total savings deposits of FCFA 12 billion for 10,000 accounts, or an average FCFA 1.2 million per account, outstanding credit is now about half of the collected savings. There are prospects for support from the ADB and the World Bank. When that happens, the intention is to make concessionary loans to the agricultural sector. The CAC still has to prove its impact and staying power beyond the period of German assistance.

Canada. Canada is relatively prominent among donors in Cameroon with about \$18 million per year in disbursements. For over a decade now, Canada has supported the forestry sector: an inventory of forest resources, development of a forestry master plan and sustainable forestry policies, management of forestry resources, assistance to forestry enterprises, and training in forestry. Canadian aid was instrumental in the creation of CENADEFOR, a forerunner of ONADEF. A phase II project (\$14 million), started in 1986, has just been completed and a new phase will start in 1993. Collaboration with other donors is sought in the field of biodiversity and sustainable forestry. Canada also supports the promotion of non-traditional agricultural exports and is financing the very large GEOMAR International study on the subject, as well as several pilot projects. In general, Canada provides assistance to small and medium enterprise development and is also active in the financial sector.

Belgium. Belgium's major aid program in Cameroon is in the health sector. Belgium financed the Yaounde general hospital, fully equipped with 300 beds at a cost of FCFA 15 billion. In agriculture, major activities are in livestock extension with MINEPIA at the experimental farm at Kounden in West province, where improved breeds of sheep, goats, pigs and poultry (short cycle livestock) are produced, and in fish culture (tilapia) with IRZV. In the Southwest and Littoral provinces Belgium assists the extension of improved food crop varieties (sweet potatoes, bananas and plantains, cassava), through a former MIDEVIV

project for cocoa and coffee seedling multiplication and extension. The extension project on food crops is now largely financed through STABEX as part of the restructuring of the cocoa and coffee subsectors, with Belgium providing four T.A. persons.

There is also long-standing support for CUD at Dschang in three departments: livestock, soil science and plant protection. The best performance has been achieved with the soil science department. In the past, there has been support of root crops research at IRA through IITA, followed by support from the Gatsby charitable foundation and USAID's ROTREP project.

The United Kingdom. Britain finances a three-year Forest Management and Regeneration Project (FMRP) based in the Mbalmayo Forest Reserve (\$2.85 million or £1.9 million). Demonstration plots will be established for five different silvicultural techniques for forest regeneration. The aim of the project is to help the country develop a sustained harvest of timber for both domestic and export requirements, while preventing the unsustainable exploitation of the natural forest. The U.K. also supports (\$1.8 million, or £1.2 million) the Limbe Botanical Garden project and, together with other donors including USAID, research in the Korup forest reserve. At Nkolbisson and Ekona, it finances assistance in biometrics and computer applications (\$1.5 million or £900,000) in IRA and IRZV.

The Netherlands. The Dutch development assistance program in Cameroon is mainly in environmental projects: the \$2.5 million Waza-Logone agroforestry projects in North Cameroon with CARE and the "Tropenbos" research project beginning in 1993 for the protection of humid tropical forests in the Kribi region. This latter project aims to define a sustainable logging policy and practice more clearly. Its field activities are carried out in the logging concession of a large Dutch forestry firm (Wijma).

In education, the Dutch also provide assistance to the University Centre of Dschang, the Garoua wildlife school and the Pan African Institute for Development at Douala. The Dutch also have many volunteers in Cameroon in grassroots community development. A main feature of Dutch aid is that it is focused on NGO/PVO organizations, not government institutions.

Switzerland. Most Swiss aid in agriculture is channelled through NGOs. The largest project is support for APICA (Association pour la Promotion des Initiatives Communautaires Africaines) for US \$3 million. Other projects are farmer training in the ZAPI EST/INADES project (US \$1.5 million) and the MIDO project: development of food crop production at Ombessa. Other projects are of the community development type.

Italy. In agriculture, Italy supports a training project at Melen Baaba. It concerns appropriate technology transfer, livestock development, women in development and support for the marketing of agricultural products. With the E.C. Italy also supports rural integrated development at the Departments of Dja, Lobo and Ntem. Cooperatives and community development are supported at Touboro.

Japan. Japan (JICA) finances the construction of food warehouses at Foubot, Edea and Ngaoundere for a total of \$10.8 million (1.3 billion Yen) and actions to increase food production for a total of \$3.75 million (450 million Yen).

China. In conjunction with the Lagdo hydro-electric dam in the North province, which they financed, the Chinese have a 2-year, 800 hectare irrigated agriculture project worth \$3.8 million (FCFA 1 billion) together with training in rice cultivation of local farmers. They also finance, at the same cost, a mushroom and vegetables project located at Obala near Yaounde. Furthermore, they provide credit for the acquisition of Chinese farm machinery and training to operate the machinery.

IV. PROSPECTS FOR THE AGRICULTURAL SECTOR IN CAMEROON AND OPPORTUNITIES FOR USAID

A. Areas of Concentration and a Regional Focus

The preceding discussion, especially Part II, has highlighted a number of critical issues for sustained agricultural sector growth and broad-based economic development. Resources are simply not available to permit USAID to address each of them. Further, the evolving political and economic situation dictates a need for program flexibility. In view of the ongoing activities of the GRC and other donors identified in Part III, and considering where USAID has a comparative advantage, there are three broad areas that appear to offer good opportunities for promoting development of Cameroon's agricultural sector. These are:

1. Continued support for economic liberalization, policy reform, and structural adjustment in agriculture.
2. Agribusiness development.
3. Environmental and natural resources management to promote sustainable development.

There is also another area, where USAID has been involved for many years and certain tasks remain to be completed, though at a lower level of Agency involvement than before and in a manner more in keeping with economic liberalization. This is:

4. Agricultural research and higher education.

The first of the four areas is one where activities would have potential impact on a national scale. For each of the second two areas, however, it is proposed that USAID adopt a *regional focus* to strengthen linkages between USAID projects, reduce overhead costs and deepen the institutional and resource base that it is possible to provide. Ideally it should build on past USAID engagement in agriculture and rural development in Cameroon, particularly in agricultural research, higher education and work with cooperatives and credit unions. With this consideration in mind, and also the existing base and future potential for agribusiness development, it is suggested that the following provinces constitute the best case for a regional focus:

- * Northwest province
- * West province
- * Southwest province
- * Littoral province

Depending on the Low/Medium/High outcome of USAID commitments to Cameroon, the focus could go from one province in the low scenario to all four in the high scenario. A SWOT analysis of these provinces has been done to facilitate decision making in this respect. *Strengths* and *weaknesses* regarding activity in these provinces are compared, along with *opportunities* and *threats*. (If desired, weights can be given such that an overall ranking becomes possible).

There should also be a regional focus in environmental and national resources management. Here the recommendation is that concentration be on the South and East provinces in the humid forest zone. This is where the nation's most important forest reserves are located and where logging is currently heaviest. Such a focus would also constitute a geographical counterweight to the concentration in the agribusiness program. Further, it should be noted that there are additional resources available from international institutions, most of whom are centrally funded by USAID to some extent or receive other U.S. government support. This is the case with the humid forest research program of IITA, ITTO grants in the forestry sector, and ICRAF core program research in Cameroon. For natural resources management in particular, this represents a significant contribution to USAID strategy.

The Far North and North provinces are not retained because other donors are already quite active there, in particular France through its support in the Garoua project for cotton, cotton diversification, and irrigated rice production, the E.C. in the Benue plateau and Germany and the World Bank with livestock. The Adamaoua plateau is not included because of its low population density, although its potential for intensive maize production and livestock development is high.

The Central province constitutes the transition zone between the humid forest zone and the savanna zone. The northern part is very sparsely populated and so does not warrant a high priority; the southern part belongs to the humid forest zone and is similar in many respects to the South and East provinces where actions are proposed for the environment and natural resources management. Activities at IITA's humid forest station at Mbalmayo, and IRA-Nkolbisson, rank prominently in the environmental action agenda in terms of research on sustainable natural resources management on acid soils in the humid forest zone.

SWOT Analysis

NORTHWEST AND WESTERN PROVINCES

Strengths

- the country's most productive agricultural area
- good IRA presence: Bambui and Foubot stations
- English-French speaking population
- African CIP center for potatoes and sweet potatoes research
- excellent opportunities for fruit and vegetable production (non-traditional exports)
- strong cooperative movement in Northwest
- strong credit union and savings movement
- good roads in West
- University Center Dschang situated in the region
- scope for arabica coffee production expansion
- Société des Provenderies du Cameroun, the largest feed mill, situated in Bafoussam
- MAISCAM planning to set up a factory in Foubot
- collection center (wholesale market) being studied for fruit and vegetables at Foubot
- weekly public market information already being broadcast (GRC/UNDP/FAO project)
- animal traction has been promoted and introduced (PAFSAT/GTZ project)
- MIDENO: relatively effective rural development organization in Northwest province.

Weaknesses

- long distance from major urban centers: Douala, Yaounde
- poor roads in Northwest province
- lack of soil erosion prevention
- cooperatives used to over-dependence on the state
- agricultural and food marketing fragmented, lack of specialization and economies of scale
- weak input supply systems
- extension services weak, underfinanced
- MIDENO requires heavy GRC financing

Northwest and West Provinces (continued)

Opportunities

- agricultural intensification because of land shortage
- good scope for agribusiness development, especially in West
- development of cooperatives as viable production and marketing private enterprises
- development of credit unions and savings cooperatives (CAMCCUL) as sustainable rural banking institutions
- a lot of on-the-shelf and component technologies available from IRA
- large scope for expansion of maize production, potatoes, onions; Pioneer expects more than half of its hybrid maize seed to be sold here
- well suited to development of fruit, vegetable, flower and ornamental plant production: Pioneer expects 70% of its vegetable seeds to be sold here
- well suited to intensive livestock production: poultry, pigs
- development of better trade with Nigeria
- development of tea production, although weak comparative advantage and marketing
- improving consistency of arabica quality through upgrading would result in immediate pay-off
- possible niche for Cameroon specialty arabica (e.g. organic label)
- many NGOs are active in these provinces

Threats

- political instability, especially in Northwest province
- high population density, especially Northwest province, and land shortage
- UCCAO likely to resist democratization
- CUD not functioning due to lack of funds
- illegal Nigerian imports, undercutting domestic production

SOUTHWEST AND LITTORAL PROVINCES

Strengths

- private enterprises vigorous
- agricultural potential high
- close to large urban market in Douala
- close to Douala for exports and imports
- well situated for perennial crop development: rubber, coffee, cocoa
- presence of large agro-industries and qualified labor force
- Ekona IRA Station well suited for root and tuber research
- Njombe International Center for Research on bananas and plantains
- medicinal plant enterprise already operating (Mutengene)
- cocoa production in Southwest among the most productive in Cameroon
- cooperatives with development potential exist in both provinces (SOWEFCU and UCAL)

Weaknesses

- very little livestock: only small ruminants and poultry farming around Douala
- roads poor in much of Southwest
- climate not so good for non-traditional exports except bananas
- expansion at the expense of rainforest and montane forests: ecological vulnerability
- superior technology for roots and tubers not readily available and slow extension (vegetative propagation)
- no major IRA research in the Littoral province although Ekona and Njombe are relevant

Southwest and Littoral Provinces (continued)

Opportunities

- development of banana production, pineapple production and other non-traditional crops
- privatization of large agro-parastatals: SOCAPALM, PAMOL, CDC
- coastal fishing and fish culture development
- development of wood-based industries
- development of cooperatives both in traditional (cocoa, coffee) and non-traditional directions (inputs, marketing of other crops)
- scope for development of poultry, pigs
- links with Nigerian market for food could expand prospects
- smallholder rubber plantations (nucleus estates) may have potential for expansion

Threats

- low population densities: shortage of labor

B. Economic Liberalization and Policy Reform - *National Focus*

Streamlining business regulation. As noted earlier, since the implementation of the SAP in 1987 there have been a number of important changes in the agricultural sector, including the liquidation and in some cases privatization of parastatals, market liberalization (especially with regard to arabica coffee), and new legislation (e.g., labor code, cooperative law) reflecting the move away from state interventionist policies. USAID, through its fertilizer and arabica subsector reform programs and the privatization of high-yield seed production, has played an important role in these changes.

However, much remains to be done. The regulatory and tax environment is still not very conducive to promoting private sector activity, and administrative obstacles (including check points on highways) hinder the flow of agricultural goods within the country. There is still state intervention in robusta coffee and cocoa marketing through the setting of floor prices and the regulation of traders and exporters. In view of this situation, USAID should, in concert with other donors, continue to devote efforts to encouraging policy reform and continued privatization and economic liberalization. The following activities would complement the program carried out under the heading of agribusiness development and, in general, should therefore be pursued even in the low scenario for prospective USAID activity:

- ▶ Monitoring progress in implementing the reforms in:
 - the labor code
 - the investment code
 - cooperative law
- ▶ Continuing to exert pressure to:
 - end the fixing of "floor" prices for robusta coffee and cocoa
 - further liberalize licensing procedures for coffee and cocoa trading and exporting
 - end the collection of informal tolls at security check points on the roads.

It is well-known that not all donors are as committed to the degree of liberalization of these markets as USAID. Policy dialogue with other donors, especially France, is needed in order to pursue the dismantling and privatization of parastatals more successfully. If empirical evidence in support of marketing reforms would assist in their promotion here, a study contrasting performance in countries where parastatal marketing is dominant with cases where marketing has been liberalized could be carried out. USAID does have a comparative intellectual advantage in this area.

Streamlining the civil service and state agencies. One of the principal stumbling blocks to GRC reform efforts has been the inability to reduce public sector payrolls. The multi-donor evaluation of IRA and IRZV concluded that scaling down and much tighter priority setting for research were inevitable. The same treatment is needed for University Center at Dschang (CUD) as the academic and scientific staff/student ratio is too large. IRA and CUD are historically two flagships in USAID's agricultural strategy in Cameroon. The restructuring will be very painful with high costs associated with it in terms of severance pay, early retirement, payment of arrears, etc. Such restructuring will not succeed unless the associated costs can be met. USAID can hardly meet these directly, but it can advise on the identification and management of cuts.

The reformed institutions, which are essential providers of public goods, cannot simply be privatized. However, they can market that part of their output for which there is effective demand and thus cover a share of their overhead and operating expenses. They can also contract out certain activities, such as laboratory analyses, to private enterprises in order to be able to cut facilities that do not justify a heavy expense. As a form of assistance for the transition process USAID should stand prepared to buy-in certain services, studies and commodities. To some extent this is already happening as, e.g., CAPP contracts out certain studies to Dschang. The buying-in process should be competitive and performance-oriented. IRA, for example, could bid for certain research projects in the area of environmental conservation which the Mission may want to contract out. The Chad USAID Mission may want to buy from IRA certain component technologies for sorghum or other crops for which they have an interest.

C. Agribusiness Development - *Regional Focus*

USAID support under this heading would be for three main type of agribusiness institution:

Support for cooperatives. USAID has already taken a prominent role in this area through its PRAMS I project to strengthen the NWCA and promote liberalization in arabica marketing. This kind of support should be continued and, in the high scenario, extended. UCCAO, marketing arabica in the West province, may not be in much need of assistance, having exported arabica for years, and probably would be even less open to control by farmers than the NWCA. But the cooperative unions in the Southwest and Littoral provinces could certainly benefit from the kind of technical and financial assistance the NWCA has been receiving. These cooperatives are also candidates for aid as distributors of farm inputs and credit (see below).

Non-traditional Agribusiness Development. This may require activities in the area of agricultural production, processing, marketing and export promotion through private operators (smallholders, private firms, cooperatives, savings and credit associations, producer associations). Key constraints will be the marketing of inputs (seeds, fertilizers, pesticides), credit, and identifying market outlets, for the domestic market as well as for export.

Promotion of non-traditional exports has been suggested as one means of diversifying Cameroon's agricultural sector and promoting agribusinesses. A major study on the promotion and diversification of agro-food exports from Cameroon has been done by GEOMAR International with financing from CIDA in the framework of a proposed World Bank project and in collaboration with MINDIC. However, it should be noted that a number of other African countries are currently planning to get involved in non-traditional exports aimed at the European market, so prospects in this regard may be somewhat limited. Furthermore, attention will have to be paid to extension, as noted below, since the existing services are unlikely to have the knowledge needed for specialty crops.

Traditional Agribusiness Development. This involves mainly support for policy reform, including regulatory reform, to promote an improved agribusiness environment. It could also include assistance to state and parastatal agribusinesses in facilitating their pri-

vatization. One important aspect is the finding of appropriate potential new owners for those enterprises. USAID could furnish such external contacts and assistance in finalizing contacts. USAID could also help financially in the transition to private ownership and management by assuming part of the severance pay and other social costs of restructuring.

The components of an agribusiness program. Each of the above three would be assisted by the following activities:

1. Information on competitiveness and markets. Market information is presently highly inadequate, and while there are limited GRC-donor efforts in this area, USAID could contribute significantly to improved market information. This means supporting collection and dissemination of market information (prices) for both rural and urban wholesale and retail domestic markets,⁷ facilitating flows of information concerning developments in the markets for Cameroon's export crops (SOPECAM, the press agency, presently has a monopoly for receiving and disseminating international market news wire services), and sponsoring workshops for entrepreneurs to provide up to date information about the changing legal and regulatory environment for businesses. More particularly data collection on the following should be supported:

- domestic agricultural production, sales and productivity:
 - i) traditional sector;
 - ii) modern sector;
- domestic food markets: prices and quantities;
- evaluation of food marketing performance;
- characteristics and requirements of regional and European export markets;
- competitiveness of import substitution and export industries;
- impact of structural adjustment on economic growth and income distribution.

Within a regional focus, USAID could break new ground through CAPP in moving away from annual surveys of the smallholder agriculture, an on-going activity with DEAPA, to surveys that focus more on policy relevant variables linked directly to priority policy analysis subjects. Two important subjects are contained in the above list: the impact of structural adjustment and economic liberalization on agriculture, and food marketing performance studies. Such studies could have a national component and a strong, bottom up, regional focus. Data collection efforts should be geared towards such studies. CAPP should also continue to undertake ad hoc studies as the need arises for policy preparation and reform.

2. Assistance with the conduct of feasibility studies and private enterprise development, including reconnaissance trips abroad, test marketing, local and overseas short term training, legal and management assistance. This will require a long term (3 to 4 years) agricultural marketing expert (fruits, vegetables) and an agribusiness development expert (agricultural economist, preferably with an MBA.) This should be complemented with the provision of specialized short term consulting services, as required (consultancy fund), and identified by the long term T.A. The mix of long term and short term T.A. is what is most appropriate in this case given the specialized nature of the assistance.

⁷Collection of such data is necessary for the studies of the performance of the food marketing sector proposed above.

3. **An information clearing house**, in particular regarding export opportunities to the U.S., procurement of equipment and raw materials from the U.S. and the general business climate, including rules and regulations, in Cameroon.
4. **Identifying prospective agribusiness participants**, including existing firms and new domestic and foreign firms. The long term T.A. will have to play a major role in identifying potential participants, motivating them and assessing their needs and requirements to facilitate their engagement. This can be approached through, e.g.: seminars and workshops on the prospects and opportunities for non-traditional agribusiness development, on the general (changing) business environment in Cameroon, the new investment code, free trade zones, labor code and cooperative law.
5. **Encouragement of investments in agribusiness ventures**. This can take many forms, for example:
 - a minor participation in the share capital with the option of divesture after a number of years (venture capital fund);
 - investment credit, particularly for equipment and machinery purchased in the U.S.;
 - loans via the formal banking sector whereby USAID provides part of the loan collateral or assumes part of the risk, including foreign exchange risk;
 - setting up an investment promotion center which features items listed above.
6. **Support for producer associations, cooperatives, credit unions**, i.e., group action which will facilitate input delivery, and agricultural extension. Agribusiness products, particularly if they are non-traditional, usually involve high quality agricultural and horticultural products which need specialized inputs (seeds, fertilizers, pesticides, machinery and equipment). The acquisition of these inputs, via the private sector, will probably need assistance in the launching phase through credit to an appropriate local organization (cooperative, credit union, bank). The project thus needs to have a credit component and a credit advisor working with local institutions, e.g., CAMCCUL or tontine organizations.

There will also need to be support for specialized agricultural extension. Because of the particular requirements of the crops to be grown, specialized extension services need to be provided regarding the growing of such crops (rates and dates of planting, input use, cultural practices, pesticide use, harvesting practices). The existing extension service in the region is unlikely to be able to provide such services because of their specialized nature. Short term assistance to work with the existing extension service in the region will be needed during the first years.

7. **Support for agricultural marketing**. Agribusiness ventures only have a chance of survival if they provide the right marketing mix to their customers, local and/or overseas. This involves pricing, packaging, product characteristics (grading, quality, choice of variety, time of maturity, etc.), promotional activities, regularity of deliveries and timeliness. It requires a heavy organizational effort and high flexibility, particularly as such products usually involve a particular marketing niche. Thus, support for agricultural marketing is vital, particularly at the planning, launching and running-in phase.

Such services could be provided to the agribusiness ventures on a contractual basis and for a limited period of time.

- 8. An Endowment Fund for a Private School of Management at the MBA level.** Management in all its aspects (administrative, financial, personnel, office, marketing, etc.) is generally considered one of the major weaknesses of Cameroonian institutions, public and private alike. The university system is not really addressing the needs for management training in Cameroon as the emphasis is on technical skills and on preparing persons for civil service employment. Training is not geared towards entrepreneurship and the setting up of one's own enterprise. For instance, the drawing up of a business plan, including a projected cash flow over the next five years, the composition of the appropriate marketing mix for a product, the conduct of a feasibility study, etc. are all skills which are rarely taught at economics faculties or higher schools of commerce.

The only existing school offering business training in Cameroon is the Ecole Supérieure des Sciences Economiques et Commerciales (ESSEC) at Douala, though there are a number of private institutions offering business management and accounting courses, generally in the evening. They commonly have no buildings or facilities of their own and most of the professors in these private institutes have a full time teaching or management job during the day. The emergence of such private institutions is an indication of the need for training in this area and the insufficiency of state supported institutions in business training.

It is recommended that in the high scenario USAID examine the creation, together with Cameroonian partners, of a graduate and postgraduate school of management at the MBA level. The setting up of an endowment fund for the school would probably be the best way of supporting the venture. USAID, because of its obvious comparative advantage in this area, should seriously consider establishing a fund of this kind under its high scenario. What is suggested here is an institution of the following type:

- A first university degree (license, ingénieur) is required for admittance plus two years of proven professional experience; in addition, students must be recommended by the institution from which they come.
- Private or semi-governmental character of the school with a great deal of autonomy (no governmental intrusions).
- A board of trustees which reads like a "Who's Who" in the business community in Cameroon.
- A sizeable endowment to get the school started; this endowment would come from the private sector in Cameroon and a starting grant (endowment fund) from USAID and maybe U.S. foundations/companies.
- A large part of the professional staff would be on a part-time basis; they would keep their functions in the private sector.
- Affiliation with a recognized graduate school of business in the U.S. is recommended.
- The basic course program would be a one-year program; special short-term courses, evening courses, etc. could be added.
- One option in the curriculum would be *agribusiness management*, including training in plantation management.
- A three months' practical training (stage) in established, recognized private firms in Cameroon or abroad could be made mandatory.

- Tuition would be required from the students; if they can't pay, they could "borrow" their tuition, to be paid back in the ten years after graduation, interest at the commercial rate included.

Sustainability of the school would be assured through the tuition and fees, contributions from the private sector, grants from various donors, and contract income from studies and consultancies of its staff. The GRC could contribute the land for the construction of a building, if necessary, but start-up of the school could be in an existing building.

D. Environment and Natural Resources Management - *Regional Focus*

Support for a National Environmental Action Plan. There has been considerable activity of late in the area of environmental management, and a number of donors are involved. A multidisciplinary mission has recently recommended that the GRC prepare a National Environmental Action Plan (NEAP), to be implemented through the recently created Ministry of Environment and Forests. USAID should, in conjunction with other donors, assist the GRC in preparing a NEAP; with more significant resource inputs, assistance could also be provided for implementation efforts.

In addition, existing forestry legislation needs to be adapted to the growing need for more sustainable logging and forest exploitation. Existing forest preserves are currently being logged, with the blessing of the GRC. Thus there is currently no effective protection. The NFP document provides a good overall framework for such reform.

Support for resource management research in the humid forest zone. This needs to build on USAID's large investment in agricultural research and education. It should also take into account the fact that USAID is the largest donor for IITA which, since its inception in 1965, has had sustainable farming systems for the humid and subhumid tropics in its mandate. The new medium-term plan for 1994-98 just published by IITA assigns to the Mbalmayo substation in Cameroon the major responsibility for resource management research in the humid forest zone (acid soils). Six core scientists will be posted here. A soil analysis lab at Nkolbisson will serve as the main laboratory, in collaboration with IRA. Research on acid soils concerning improved cropping systems, fallow management and agro-forestry, integration of food crops, multi-purpose trees, and other plants with environmental or commodity value will thus take place in Cameroon. This is because IITA's Ibadan station is situated in the subhumid transition zone on neutral soils.

IRA's farming systems research, and particularly the testing and liaison units (TLU's), are only about five years old. Nearly two-thirds of the on-farm experiments involve agro-forestry and resource management research. As it takes two to three years to establish hedgerows of agro-forestry species, it is only now that valuable research results are being obtained. The desperate financial situation in which IRA finds itself precludes any significant work without external financing. Thus, without the planned major agricultural research project of the World Bank, there is no real hope for IRA to survive the crisis. However, if the World Bank project is implemented once the conditionalities for the third SAL installment are met, it is suggested that USAID support a light Cameroonian research management component at IRA in the framework of its support for sustainable natural resources management.

The essence of USAID's involvement could be achieved through three T.As: one farming systems research advisor, a specialist in on-farm agro-forestry type research, and a research program management specialist who could facilitate the restructuring process and help with research project management and priority setting. The third person would involve himself with the management of plant and equipment at research stations, support the logistical functioning of IRA and help IRA with improved management procedures for technical matters. This last area is still problematic at IRA and unless technical management there is improved, research performance will suffer.

USAID's involvement with IRA would thus be complementary to the World Bank project and be conditional on it. It would strengthen IRA's restructuring, support IRA-Mbalmayo (IITA) interaction and make a valuable contribution to the search for sustainable management systems for crops in the humid forest ecosystem. It is to be noted that IITA's mid-term plan also calls for stronger collaboration with national agricultural research systems (NARS), the NARS of Cameroon being the largest and the most developed outside Nigeria in West and Central Africa. If the agreement is made with IITA, it is suggested that the conditionality be backstopping by IITA of IRA in terms of its agro-forestry research in cropping systems and in its farming systems research (FSR) program for adaptive, on-farm research.

The setting up of a study and research fund. A study and research fund on sustainable natural resources management should be set up at the Mission. Special studies and consultancies would be financed through this fund and Cameroonian institutions would be awarded contracts for specific studies related to the subject. IITA-Mbalmayo and IRA would be a research base for the conduct of such studies: natural resources inventories, land tenure studies, anthropological studies in the forest zone, alternative employment opportunities in the forest zone, etc. Co-financing of studies with other donors would also be facilitated in this way.

Geographical Information Systems. The recent report of the Multi-Disciplinary and Multi-Institutional Mission on the Environment (October 1992) recommended establishment of an operational Geographical Information System (GIS) in order to promote efficient environmental management as a key part of GRC environment policy. A GIS consolidating existing agricultural, socioeconomic, and land use data on the various ecosystems within Cameroon was seen as instrumental for promoting natural resource conservation and sustainable development within the agriculture sector. It was recommended that the GIS be developed through the collaboration of donors with the Ministries of Environment and Forests, Scientific Research, and Higher Education.

USAID, using its Title XII mechanism for linkages with universities, is in an excellent position to take a leading role in the establishment of a GIS. USAID could contract with an American university to set up a GIS in collaboration with the relevant GRC Ministries, similar to the arrangement for establishing a regional GIS that USAID/Zaire had with Ohio State University.

The promotion of fish culture. In order to reduce pressure on game hunting in the forest zone, tilapia fish farming could be promoted. USAID really has a comparative advantage in this area. The fish culture project implemented through the Peace Corps was very

successful in Zaire. A start has already been made in Cameroon. As requirements for animal protein in the more densely populated forest areas are met largely through bushmeat, fish culture should be promoted there first to help preserve animal biodiversity.

Recently, fish culture has been promoted in the vicinity of the SEMRY project at Maga and North-West Benue (Lagdo). In the southern provinces, fish culture exists at a limited scale with an annual production of about 50 MT per year (Doufissa and Tsangué, 1992). A Belgian-Cameroonian tilapia research and development project has also started with IRZV. Main activities will be in the Northwest province. The Northwest province has 3 aquaculture research stations and one fish hatchery with 76 fish ponds with a total area of 82,390 m².

Funding of an NGO/PVO Program. Funding of an NGO/PVO program in natural resources management could be on the basis of competitive bidding and merit of the proposed actions. Most successful conservation efforts and debt swaps for nature in the world are based on the presence of at least one strong NGO/PVO. The U.S. is fortunate in having several NGO/PVO's specialized in natural resources management, wildlife and biodiversity preservation. They are usually linked to zoological societies such as New York or San Diego, or wildlife preservation societies. USAID's comparative advantage in this area should be exploited.

Implementation of a debt-for-nature program would appear to be a desirable mechanism for preserving natural resources, particularly in view of the acute GRC financial situation. Such programs typically involve participation of NGOs and PVOs, and in this regard, it should be noted that the office in Cameroon of the World Wide Fund for Nature (WWF) has already been involved in discussions about debt-for-nature schemes with other donors.

Policy Reform Program for Biodiversity. This would involve privatization of parks and reserves through management contracts with private conservation groups. The IRG report (May 1992) mentions the WWF and Wildlife Conservation International (WCI) as possible candidates. The government would retain only policy and surveillance roles.

SOCATOUR should be privatized. This parastatal has a large outstanding debt (\$350,000 to the Waza park) and has been rather ineffective in promoting tourism and preserving biodiversity in the parks and wildlife reserves. A privatized tourism system could support most, if not all, of the management costs of parks and reserves, help to preserve biodiversity and foster economic development in the surrounding areas.

Expansion of protected areas of biological significance. In Cameroon, the lowland tropical forest biome is the most important in terms of biodiversity: species abundance and endemism (Ministry of Environment and Forests, October 1992, p. 23). This dense, humid, evergreen forest is a major source of timber exploitation and logging continues at a variable but generally increasing rate. The Government intends to double the output of timber. But this forest has the highest species diversity recorded in Africa (Gartlan, 1992). The evergreen Atlantic forest is one of the most endangered of the evergreen forest ecosystems. It is coastal and thus accessible to loggers and close to the major ports of Douala and Kribi. It is also of relatively high population density. Most of the coastal forests have already been degraded or destroyed.

National parks and wildlife reserves are only about 4% of the national territory in Cameroon. There are also approximately 3% forest reserves, but they are not protected from logging and other economic activities. The national goal, as set by the law of 1981, is 20% of state forest, which includes production forests. Moreover, the protected area system in Cameroon is patchy. The priorities for protection are: the montane, submontane and semi-deciduous forests, the marine system, mangroves, wetlands, coastal forests and the evergreen Cameroon-Congolese forest. In particular the coastal forests need protection because much of the area has already been logged and degraded. Part of the wildlife reserve of Douala-Edea and the Campo reserve have been effectively lost. The evergreen Cameroon-Congolese forest only has the Dja wildlife reserve and hunting and trapping control is virtually nonexistent. It is important that the protected area in these forests be vastly expanded. Three areas have been proposed: Nki, Boumba Bak and Lake Lobeke. The only park created since independence is Korup (1983-84), established as a result of investment and pressure from the WWF. Dept swaps for nature conservation or other financial and conditionality arrangements could be worked out to achieve this expansion and conservation of the protected areas. It is suggested that USAID examine the possibilities of participation in such an effort.

E. Agricultural Research and Higher Education

Agricultural Research. After Nigeria, Cameroon has the most developed NARS in West and Central Africa and probably in all of sub-Saharan Africa. Until 1985, ISNAR classified Cameroon as the country in Africa most committed to agricultural research, with a government budget of nearly 2% of value-added in agriculture, while the ISNAR-SPAAR guideline is 1%. It is thus not surprising that many donors, and in particular USAID supported IRA heavily as "a flagship" from which technology spillovers could come to neighboring and other countries with similar agro-ecologies. Cameroon was thus, to paraphrase SPAAR terminology, one of the few technology generating countries in Africa while most others were technology borrowing or adopting countries.

As an illustration of large spillover effects consider maize. CIMMYT started its involvement with maize research in Zaire in 1973 with USAID financing. Out of it came several varieties of which Kasai I and II and Shaba I and II are now extensively grown in the Adamaoua plateau. Recently, the Babungo 3 variety, developed by IRA-NCRE in Cameroon and using Kasai, Shaba and other varieties as parental lines, outperformed all other maize varieties in southern Shaba in Zaire for three consecutive years, doing as well or better than hybrids imported from Zimbabwe.

It is well known that the U.S. comparative advantage in Africa is particularly high in building human capital and institutions of policy planning and research. This is precisely what happened in Cameroon.

In July 1992, IRA had 164 Cameroonian scientists and 43 expatriates; its sister institution IRZV had 61 national and 9 expatriate scientists. For several years now, contract personnel not financed directly through MINFI have been paid only irregularly and after long delays. Operating funds are virtually nil with most recurrent expenses being paid by donors. Recently, a new Ministry of Scientific and Technical Research (MINRST) was created,

replacing MESIRES which also included higher education and computer applications. This has not meant much change for IRA and IRZV.

An evaluation mission initiated by FAO and with the support of several donors visited IRA and IRZV in June and July 1992. Several scenarios were developed, the recommended one involving eventual merger of IRA and IRZV and a reduction of the total number of scientists for both institutions to 150, i.e., a serious scaling down and streamlining, with a much more focused research program, integrating crop, livestock and forestry research.

For some years now, a large World Bank project on agricultural research has been in preparation, the latest bank project in this area dating from 1986. This project (PRAN - Projet National de Recherche Agricole) will have several conditionalities before it will be approved, including a drastic restructuring of the Cameroonian NARS. Most observers believe that there is no real sustainability of agricultural research in Cameroon without the capital injection of the Bank and a restructuring. Also, the proposed Bank project is a natural complement to its large training and visit extension project (PNVFA).

Further, it is suggested that USAID cooperate with other donors in the restructuring of IRA and maintain a relatively small presence, as outlined in the section on Environment, Natural Resources Management and Sustainable Development.

Agricultural Higher Education. Higher agricultural education, particularly at the University Center of Dschang (CUD), has received major support from USAID over the last decade. As a bilingual institution based on the land grant model, CUD is poised to play a major role in West and Central Africa in agricultural education at the university and higher technical level. IITA plans to train most of the research technicians of the region at CUD. Apart from the Nigerian agricultural faculties and two agricultural universities, Dschang is without doubt the best agricultural faculty in West and Central Africa, meriting continuing USAID support.

Unfortunately, plans for CUD have been too ambitious in light of Cameroon's severe budget crisis and demise of its public institutions. The staff/student ratio at Dschang is very high and without doubt unsustainable. As the GRC failed to pay staff salaries on time, while operating funds have withered away completely, the regional role of Dschang has been shelved in the struggle to survive on its national role.

Thus, CUD will have to be restructured and scaled down and its management improved. Part of its staff will have to look for other functions, particularly the large administrative and support staff. A restructuring and reorientation plan should be drawn up and the transition to a more sustainable institution prepared and supported. In light of USAID's major role in the past, it is reasonable for USAID to provide assistance during the difficult transition.

A case probably cannot be made for a continued presence of expatriate teaching and support staff. However, a program of short term faculty exchange ("jumelage"), visiting professors and sabbaticals abroad for CUD professors according to needs seems warranted. What is needed is still management assistance (personnel, financial, administrative, planning and control mechanisms) particularly for the transition. USAID has a comparative advantage in this area and should seize the opportunity to ease the transition and put Dschang on a more sound financial and management footing.

Continuing support for Dschang could also occur through performance based contracts for research and ad-hoc studies. This is already taking place through the CAPP project. A limited number of doctoral fellowships should also be given to top graduates in selected areas where there is still need and to compensate for inevitable attrition.

F. Roads Not Taken

Infrastructure. USAID has no comparative advantage in Cameroon in the provision of physical infrastructure such as roads, telecommunications, water and electricity supply. Such economic infrastructure can best be financed through long term investment loans from international lending institutions. After all, Cameroon is still a middle income country with a good economic base, although in crisis. This is not to say that minor infrastructure works within a regional focus and as part of a larger action should not be financed on an ad-hoc basis, if there is no other alternative.

What is however, more important for Cameroon is cost recovery and user fee financing of its economic infrastructure and its maintenance. Thus, charges levied on fuel and vehicles should above all support the maintenance and extension of the road infrastructure. Taxes levied in markets should first of all go to the maintenance, improvement and extension of the public marketing infrastructure and not first to other unrelated uses. Thus, in the framework of the ongoing policy reform dialogue, USAID together with other donors could use its intellectual and program leverage to stimulate policy reform compatible with cost recovery for economic infrastructure, user fee financing and sound public management including the removal of monopoly management of most public utilities.

Agricultural Inputs. USAID has been very active in fertilizer subsector reform and in transferring responsibilities for seed supply from the state to the private sector. This process is still ongoing. However, some important gaps remain, e.g., the provision of seed of open pollinated maize varieties to smallholder farmers, and the distribution of improved planting material of bananas, plantains, roots and tubers after liquidation of MIDEVIV.

The World Bank supported agricultural extension project has some limited activity in seed supply but it has not yet had a real impact. Continued action is needed to encourage cooperatives, NGOs/PVOs and private sector operators to assume responsibilities in input supply on a cost recovery and sustainable basis. This could best occur within a regional focus as there will then be a better knowledge of the local institutions and private sector operators. There is also the danger that with the privatization of distribution of agricultural inputs, private sector monopolies could emerge which could extract monopoly rents from farmers. Although this is very unlikely in the present poor business environment in the agricultural sector, such tendencies need to be monitored and healthy competition encouraged wherever possible.

Subsidies on pesticides are being removed, reducing yet further the already diminished incentive to purchase them for coffee and cocoa production that has resulted from the fall in the prices of these commodities. Furthermore, some of the most important parastatal organizations distributing them have wound up or vastly reduced the scale of their operations,

threatening their availability at any price. Unfortunately, cocoa, coffee and cotton cannot be produced in good quality and with acceptable yields without the use of pesticides.

However, this kind of development should be left largely to the private sector. The suppliers of pesticides are all major multinationals (Shell, BASF, Hoechst, Ciba-Geigy, Sandoz, Roussel-Uclaf, Rhone Poulenc, ICI, etc.) which have subsidiaries in Cameroon. They have all the marketing experience desired but were never really challenged to use it, as all they had to do was to respond to tenders and practice lobbying. With pesticide marketing reform, they will have to demonstrate their skills, develop a distribution network, assist farmer organizations, provide guidance, etc., but they have done this in many other countries, including Nigeria. The overall market is estimated by the Ministry of Agriculture at FCFA 5 billion per year.

At the same time, some form of quality control should be instituted, for if there were no controls many non-brand name products of dubious content and value could be introduced at cut-rate prices. This has happened in other countries, particularly with products violating patent laws from eastern Europe, Russia, Thailand, China, etc. Such quality control could be contracted out to specialized overseas laboratories and it is not evident that Cameroon needs to build up a capacity in this area, although CUD and ENSIAAC at the University Center Ngaoundere (CUN) have acquired a lot of sophisticated equipment for chemical analysis. Also, CARFOP at CUD has a capacity in this area.

Agricultural Extension. The World Bank supports a major national agricultural extension project, capitalizing on IRA's considerable stock of farmer-tested proven technologies, particularly for cereals and root and tuber crops. The large integrated rural development projects supported by the E.C. also always have an agricultural extension component. France assumes major responsibility for cotton subsector extension. Extension for the major export crops has been reduced considerably, with the dissolution of MIDEVIV which distributed cocoa and coffee seedlings, the decline of the export crop parastatals and the GRC desire to diversify away from the traditional export crops.

However, in a regional focus, as mentioned earlier, USAID could support limited extension activities through cooperatives or in collaboration with NGOs/PVOs and the World Bank project. These would remain to be defined on an ad-hoc basis.

Livestock. It has not been suggested that USAID support livestock research or development in Cameroon. Other donors have a greater comparative advantage here than USAID. The World Bank is heavily involved in livestock development, GTZ provides long term support for the IRZV and livestock production systems program, the E.C. supports OPV (the veterinary parastatal), and Belgium the Kounden experimental livestock farm. The country's main livestock activity is in the North and Far North, outside USAID's concentration region. Policy reform is proceeding only slowly. The privatization of veterinary services is not going ahead easily, with only a handful of private veterinarians established, mainly in urban centers. In terms of public policy reform, the price fixing of meat and fish products should be abolished to let market forces determine the price of meat. In most cases, price controls are not enforced and they are thus very ineffective in controlling the price of meat. On the other hand, livestock statistics could be improved considerably through the CAPP project, although not under USAID's low scenario.

Agricultural Credit. The history of formal agricultural credit in Cameroon is not encouraging. The liquidation of FONADER, which used to be the parastatal responsible for agricultural credit is a case in point. Credit in Cameroon has always had the connotation of a gift, not to be returned if at all possible. FONADER was effectively an instrument to subsidize agricultural production through subsidized loans to preferred loan takers, who were not always the best agricultural entrepreneurs. As mentioned above under the heading of German aid, a new agricultural credit institution, the CAC or Credit Agricole du Cameroun, was created, largely financed and managed by Germany.

But for all practical purposes, farmers use mainly informal credit, sometimes at steep rates. This occurs through NGOs or informal sector financial intermediaries such as tontines or njangis, caisses populaires agricoles and rural savings and credit cooperatives. USAID has in the past provided assistance to the rural savings and credit cooperatives (CAMCCUL), and accordingly knows the subject well and has a comparative advantage. However, there was already support over a period spanning 17 years. Thus, within a regional agricultural program, some support could still be given to NGOs dealing with credit, particularly as it relates to the privatization effort on agricultural inputs and products. Without credit, most farmers will not be able to acquire improved seeds, planting material, fertilizers and pesticides. It is in this perspective that some support may still be warranted.

References

- AGOUM, Anabel. Overview of Data on the Agricultural Statistics Available at the Surveys and Agricultural Economic and Agricultural Planning Department. MINAGRI, paper presented at the Annual Policy and Planning Conference, 27-28 September 1990.
- ATOUGA, Lapodini. The Impact of Import Taxation on Local Meat Production and Consumption. MINEPIA, DEPF, CAPP, 1990.
- AYISSI MBALLA et al. Cameroons Food and Consumption Projections. USAID/CUD, Dschang, 1988.
- AYUK TAKEM, J.A. The Food Crop Research Situation in Cameroon and its Economic Impact for the Users of Research Results. IRA, Yaounde, no date.
- BATIMBA, Simplicie. Etude du secteur national de l'aviculture au Cameroon. CAPP, October 1992.
- DIXIE, Grahame. Marketing of Food Crops in the North West Province of Cameroon, Scope for Effective Action. PAFSAT, FAO, Project CMR/86/017, Yaounde, June 1988.
- COOPERS and LYBRAND. Cameroun: MAPS Private Sector Diagnosis. Bureau for Private Enterprise, USAID, Cameroon, March 1990.
- DOUFFISSA, Albert and Paul TSANGUEU. Evaluation du secteur rural: sous-secteur élevage et pêche. MINEPIA, Direction des Etudes, des Projets et de la Formation, Yaoundé, 5 November 1992.
- E.C. Coopération Cameroun-Communautés Européennes, Rapport annuel 1991. Délégation de Yaoundé.
- FAO/GRC. Cameroun: étude de la restructuration de la recherche agricole. 2 tomes, Centre d'Investissement de la FAO, Rome, 95/92 GOVR-CMR 33, 24 juillet 1992.
- FLACH, Marianne. Gari Processing in the North West Province of Cameroon, MIDENO-Reduction of Post-Harvest Food Losses in Grains and Roots and Tubers at the Rural Level. FAO, Bamenda, August 1990.
- GARTLAN, Steve. Biodiversity and Wildlife. Analysis of Critical Natural Resources and Environmental Issues in Terms of Economic Development. Working paper for the Report of Multi-Disciplinary and Multi-Institutional Mission on the Environment. Ministry of Environment and Forests, October 1992.
- GEOMAR International. Promotion et diversification des exportations des produits agro-alimentaires camerounais, Phase 1- sommaire executif. Montréal, December 1991-Projet no. 910412.
- G.F.S. - MIDAS. Etudes sur la commercialisation des produits vivriers. Ministère du Commerce et de l'Industrie, Fonds Européen de Développement (Lomé II), Novembre 1985.

GOVERNMENT OF CAMEROON: Conférence des Nations-Unies sur l'environnement et le développement, Rapport national sur l'état de l'environnement et du développement au Cameroun, March 1992.

G.T.Z. Cameroon Rural Finance Sector Study. July 1986.

IFDC. Cameroon Fertilizer Sector Study. USAID, May 1986.

IITA. Medium Term Plan 1994-1998. Ibadan, October 1992.

INTERNATIONAL RESOURCES GROUP. Cameroon: National Resources Management Assessment. USAID, Yaounde, May 1992.

KITE, Rodney. Food Price Patterns in Cameroon, A Comparison of Yaounde Retail Prices and West Province Market Prices. March 1988.

LANGHAM, Max R. and François KAMAJOU. Agricultural Policy Analysis in sub-saharan Africa. Proceedings of an International Symposium, November 4-6, 1991, CUD, AEP and CAPP projects (USAID), Dschang, draft October 1, 1992.

LYNCH, Sarah G. Income Distribution, Poverty and Consumer Preferences in Cameroon. Cornell Food and Nutrition Policy Program, Washington D.C. , August 1991.

MIDENO, Reduction of Post-Harvest Food Losses in Grains and Roots and Tubers at the Rural Level: Report on the Radio Marketing News Unit. Marianne FLACH, Associate Professional Officer, FAO Bamenda, May 1990.

MINISTRY OF AGRICULTURE. Politique agricole du Cameroun. Division des Projets Agricoles, Yaoundé, June 1990.

MINISTRY OF AGRICULTURE. Résultats de l'enquête agricole, campagnes 1985/86 jusqu'à 1990/91. DEAPA, Yaounde.

MINISTRY OF AGRICULTURE. Introduction à l'étude sur la définition d'un programme de développement de la production et de la commercialisation des fruits et légumes au Cameroun. DEAPA, Service des Etudes Sttistiques et Agro-économiques, Juillet 1991.

MINISTRY OF AGRICULTURE. Aide mémoire sur le cadre à moyen terme. DPA, Cellule de suivi de la N.P.A., 7 mai 1992.

MINISTRY OF AGRICULTURE. Note sur le programme à moyen terme et le plan d'action à court terme pour les négociations P.A.S.A.. DPA, cellule de suivi de la N.P.A., 25 juillet 1992.

MINISTRY OF AGRUCULTURE. Bilan de la coopération dans le secteur rural (agricole). DEAPA, Yaounde, undated.

MINISTRY OF AGRICULTURE. Stratégies de développement agricole, 1980-1990. SPAF/DEAPA/MINAGRI, preliminary report, undated.

MINISTRY OF ENVIRONMENT AND FORESTS. La politique forestière du Cameroun. Document de politique générale. Forestry department, Yaounde, August 1992.

MINISTRY OF ENVIRONMENT AND FORESTS. Environment and Sustainable Development for Cameroon: Report of Multi-Disciplinary and Multi-Institutional Mission on the Environment, Yaounde, October 1992.

MINPAT. VIème Plan quinquennal de développement économique, social et culturel. 1986-1991.

MOUNGUI, MEDI. Recueil de données technico-économiques de production, budgets de cultures: zone agro-économique forestière (provinces du Centre, du Sud et de l'Est). MINAGRI, Yaounde, March-April 1990.

NDESO-ATANGA ADA and ENOH TANJONG. Non Governmental Organisations in Natural Resources Management in Cameroon. PVO-NGO/NRMS Cameroon, USAID, Yaounde, September 1991.

NDUMBE. Evolution du développement du secteur agricole traditionnel du Cameroun, DEAPA, MINAGRI.

NELSON, Eric R., James L. MACDADE, Richard GREENE, Edgard ARIZA-NIÑO. USAID Cameroon: Country Program Strategy Concept Paper-Analytical Study, DAI and ISTI, USAID, Yaounde, November 25, 1992

NJINKEU, Dominique. Contribution à l'élaboration de la politique alimentaire du Cameroun: le cas des viandes. Département des Sciences Economiques. Université de Yaounde, CAPP, February 1991.

NLEP, Roger Gabriel. Quel est le cadre institutionnel nécessaire pour la gestion macro-économique en période d'ajustement structurel? Faculté de droit, Université de Yaounde, CAPP, May 1992.

PERRY Charles R. Analysis and Evaluation of Cameroon Agricultural Survey Design. NASS, USDA, final report on TDY to CAPP, March 3- April 7, 1990.

SFC-SEDES-CEGOS. Etude sur la commercialisation du bétail dans les provinces du Nord. Yaounde, March 1992.

UNDP-FAO. Tropical Forestry Action Plan. Cameroon Mission Report. Project CMR/86/003, 2 volumes. Rome, 1988.

USAID. Critical Issues for American Investors in Cameroon. Prepared by Business International(London), Yaounde, August 1990.

USAID. History of U.S. Economic Assistance to Cameroon. Cameroon, May 1992.

WINSTEL Research and Consulting. Cameroon Agro-Business Sector: Constraints and Development Prospects. USAID, Yaounde, November 1992.

WYETH, Peter. Arabica Production Cost and the Impact of Government Policy: An Application of Policy Analysis Matrices. Working paper, DEAPA/MINAGRI, CAPP, January 1990.

WYETH, Peter. Arabica Production in Cameroon: Preliminary Report on Revised Findings. DEAPA/MINAGRI, CAPP, June 1990.

WORLD BANK. Cameroon Agriculture Sector Report (2 volumes). Washington, DC, 1989.

Acronyms

| | |
|-----------|--|
| ACP | African, Caribbean, Pacific Countries (members of the Lomé Convention linked to the EC) |
| ADB/BAD | African Development Bank |
| ADF | African Development Fund |
| AEP | Agricultural Education Project (USAID) |
| APICA | Association pour la Promotion des Initiatives Communautaires Africaines |
| BEAC | Banque des Etats d'Afrique Centrale |
| CAC | Crédit Agricole Camerounais (supported by Germany) |
| CAMCCUL | Cameroon Credit Union League |
| CAPP | Cameroon Agricultural Policy and Planning Project (USAID) |
| CARFOP | Regional Research Laboratory for Pesticides and Plant Pathology at CUD |
| CCCE | Caisse Centrale de Coopération Economique (now CFD) |
| CDC | Cameroon Development Corporation |
| CFD | Caisse Française de Développement (replaces CCCE) |
| CENADEC | Centre National de Développement des Entreprises Coopératives |
| CENADEFOR | Centre National de Développement des Entreprises Coopératives (now part of ONADEF) |
| CGIAR | Consultative Group on International Agricultural Research |
| CIDA/ACDI | Canadian International Development Agency |
| CIF | Cost, insurance, freight (import price) |
| CIMMYT | International Maize and Wheat Research Center (part of the CGIAR) |
| CIP | The International Potato Center (substation at Bamenda, part of the CGIAR) |
| CIRAD | Centre de Coopération Internationale en Recherches Agronomiques pour le Développement (France) |
| CNCE | Centre National du Commerce Extérieur |
| COPAD | National Federation of all NGOs in Cameroon |
| CORAF | Conférence des Responsables de Recherche Agronomique Africaine |
| CRBP | Centre Régional de Recherche sur les Bananes et les Plantains, Njombe |
| CUD/UCD | Centre Universitaire de Dschang |
| CUN | Centre Universitaire de Ngaoundere |
| CZV | Centre Zootechnique et Vétérinaire |
| DEAPA | Direction des Enquêtes Agro-Economiques et de la Planification Agricole (MINAGRI) |
| DEG | German Development Agency |
| DEPF | Direction des Etudes, des Projets et de la Formation (MINEPIA) |
| DPA | Division des Projets Agricoles (MINAGRI) |
| EAMI | Entreprises Agricoles de Moyenne Importance |
| EAPRI | Economic Analysis and Policy Reform Implementation (USAID) |
| EC | European Communities |
| ECU | European Currency Unit (1 ECU = \$ 1.3) |
| EDF/FED | European Development Fund - Fonds Européen de Développement (FED) |
| ENSIAAC | Ecole Nationale Supérieure des Industries Agro-alimentaires du Cameroun à CUN |
| ESSEC | Ecole Supérieure des Sciences Economiques et Commerciales at Douala |
| FAC | Fonds d'Aide et de Coopération |
| FAO | Food and Agriculture Organization of the United Nations |

| | |
|----------|---|
| FCFA | Franc of the African Financial Community |
| FIMAC | Fund for Agricultural and Communal Micro-projects (Community based food security project, World Bank) |
| FMRP | Forest Management and Regeneration Project (Great Britain) |
| FOB | Free on board (export price) |
| FONADER | Fonds National de Développement Rural |
| FSR | Farming Systems Research |
| FSSRP | Fertilizer Sub-Sector Reform Program |
| FTZ | Free Trade Zone |
| GDP | Gross Domestic Product |
| GIS | Geographic Information System |
| GRC | Government of the Republic of Cameroon |
| GTZ | German Technical Cooperation Agency |
| HEVECAM | Société de Développement Hévéa-Cameroun |
| IBRD | International Bank for Reconstruction and Development (World Bank) |
| ICRAF | International Centre for Research on Agroforestry (part of the CGIAR) |
| ICRISAT | International Center for Research in the Semi-Arid Tropics (part of the CGIAR) |
| IDA | International Development Association (World Bank) |
| IITA | International Institute of Tropical Agriculture (part of the CGIAR) |
| IMF | International Monetary Fund |
| IMPM | Institut de Recherches Médicales et de Plantes Médicinales |
| INADES | Institut Africain pour le Développement Economique et Social |
| INIBAP | International Network for Research on Bananas and Plantains (part of the CGIAR) |
| IRA | Institut de Recherches Agronomiques |
| IRGM | Institut de Recherches Géologiques et Minières |
| IRZV | Institut de Recherches Zootechniques et Vétérinaires |
| ISH | Institut des Sciences Humaines |
| ISNAR | International Service for National Agricultural Research (part of the CGIAR) |
| ITTO | International Tropical Timber Organization |
| IUCN | International Union for the Conservation of Nature |
| JICA | Japan International Cooperation Agency |
| KFW | German Development Bank |
| MBA | Master in Business Administration |
| MESIRES | Ministère de l'Enseignement Supérieur, de l'Informatique et de la Recherche Scientifique |
| MIDENO | Mission de Développement de la Province du Nord-Ouest |
| MIDEVIV | Mission de Développement de Semences et des Cultures Vivrières |
| MINAGRI | Ministry of Agriculture |
| MINASCOF | Ministry of Women's Affairs and Social Welfare |
| MINDIC | Ministère du Développement Industriel et Commercial |
| MINEF | Ministère de l'Environnement et des Forêts |
| MINEPIA | Ministère de l'Élevage, de la Pêche et des Industries Animales |
| MINES | Ministère de l'Enseignement Supérieur |
| MINFI | Ministère des Finances |
| MINPAT | Ministère du Plan et de l'Aménagement du Territoire |
| MINRST | Ministère de la Recherche Scientifique et Technique |
| MT | Metric Tons |

| | |
|------------|---|
| NARS | National Agricultural Research System |
| NCRE | National Cereals Research and Extension Project (USAID) |
| NEAP | National Environmental Action Plan of the GRC |
| NPA | The New Agricultural Policy of the GRC |
| NPA | Non Project Assistance |
| NPF | The New Forestry Policy of the GRC |
| NPMB/ONCPB | National Produce Marketing Board |
| NGO | Non-governmental organization |
| NWCA | Northwest Cooperative Association |
| OC | Office Céréalière |
| ODA | Overseas Development Administration (Great Britain) |
| OIC | Opportunities Industrialization Center, Buea (USAID) |
| ONADEF | Office National de Développement des Forêts (consolidation of CENADEFOR and ONAREF) |
| ONAREF | Office National de Régénération des Forêts |
| ONCC | Office National du Café et du Cacao (successor to ONCPB) |
| ONCPB | Office National de Commercialisation des Produits de Base |
| ONDAPB | Office National de Développement Agricole et du Petit Bétail |
| ONUDI | United Nations Industrial Development Organization |
| OPV | Office Pharmaceutique Vétérinaire |
| ORSTOM | Institut Français de Recherche Scientifique pour le Développement |
| PA | Project Assistance |
| PNVFA | Projet National de Vulgarisation et de Formation Agricole (World Bank) |
| PRAMS | Program for Reform of Agricultural Marketing Systems (USAID) |
| PRAN | Projet National de Recherche Agronomique (World Bank) |
| PREPS | Program of Reform of the Export Processing Sector (USAID) |
| PROPARCO | A Subsidiary of CFD for Support of Private Enterprises |
| PSC | Personal Services Contract |
| PSIE | Project for the Restructuring of the Fertilizer Sector (EC) |
| PVO | Private voluntary organization |
| RCA/CAR | République Centrafricaine |
| ROTREP | Roots and Tubers Research Project (USAID) |
| SAL | Structural Adjustment Loan |
| SAP | Structural Adjustment Program |
| SEMRY | Société d'Expansion et de Modernisation de la Riziculture à Yagoua |
| SNI | Société Nationale d'Investissements |
| SNV | Dutch Volunteers Organization |
| SOCAPALM | Société Camerounaise de Palmeraies |
| SOCATOUR | Cameroonian Tourism Parastatal |
| SODECAO | Société de Développement du Cacao |
| SODECOTON | Société de Développement du Coton |
| SODEPA | Société de Développement et d'Exploitation de la Production Animale |
| SODERIM | Société de Développement de la Riziculture dans la Plaine de Mbo |
| SONEL | Société Nationale d'Electricité |
| SOPECAM | Cameroonian Press Agency |
| SPAAR | Special Program for African Agricultural Research |
| STABEX | Export Revenue Stabilization Fund (part of the Lomé Convention with the EC) |
| SWOT | Strengths, Weaknesses, Opportunities, Threats Analysis |
| TA | Technical Assistance |

| | |
|-----------|--|
| TFAP | Tropical Forestry Action Plan (FAO) |
| TLU | Testing and Liaison Unit (part of IRA-NCRE activities) |
| TROPENBOS | Tropenbos Foundation (Dutch research organization) |
| UCCAO | Union Centrale des Coopératives Agricoles de l'Ouest |
| UDEAC | Union Douanière des Etats de l'Afrique Centrale |
| UNCED | United Nations Conference on Environment and Development |
| UNDP | United Nations Development Program |
| UNSO | United Nations Sahelian Organization |
| USAID | United States Agency for International Development |
| VSN | French Volunteers Organization |
| WCI | Wildlife Conservation International (an NGO) |
| WWF | World Wide Fund for Nature (an NGO) |
| ZAPI-EST | Société Régionale de Développement des Zones d'Action Prioritaire Intégrée de l'Est |

CAMEROON
AGRICULTURAL
PLANNING AND
POLICY
PROJECT

11/11/11



Produced with technical assistance from Washington State University
and the Consortium for International Development under
funding from USAID/Cameroon Contract No. 631-0059-C-00-9015-00