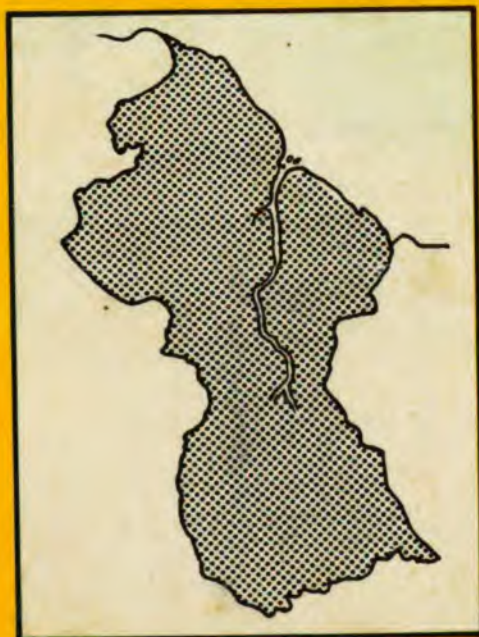


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GUYANA



AGRICULTURAL SECTOR ASSESSMENT

INTERNATIONAL FUND FOR AGRICULTURAL DEVELOPMENT (IFAD)
INTER-AMERICAN INSTITUTE FOR COOPERATION ON AGRICULTURE (IICA)



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**GUYANA
AGRICULTURAL
SECTOR
ASSESSMENT**

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PREFACE

This report assesses the performance of Guyana's agricultural sector over the last decade. Special emphasis is given to rural poverty issues in the context of economic policies and agricultural institutions.

The report is divided into seven sections and an appendix containing recent data on the Guyanese economy. An overview of the country is presented in section I; macroeconomic performance and recent economic policies are considered in sections II and III, respectively; sections IV and V deal with agricultural policies and recent trends in the agricultural sector, in an effort to discover the socio-economic factors which constrained agricultural development during the 1980s; section VI examines small-farm agriculture, its main features and the evolution of rural poverty; and the last section assesses the current status and scope of the country's agricultural institutions.

The reader should be aware of the scarcity and limitations of Guyana's data base. A considerable effort was made to obtain the most recent secondary data and to gather primary information; however, this was not always possible given the unreliability or unavailability of statistical information.

This agricultural assessment was prepared by the Inter-American Institute for Cooperation on Agriculture (IICA), through its Center for Programs and Investment Projects (CEPPI), in collaboration with the IICA's Office in Guyana. It was elaborated at the request of the International Fund for Agricultural Development (IFAD), which also provided financial support.

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ACRONYMS

ACP	African-Caribbean Pacific Countries (Lomé Convention)
AEC	Advisory Environment Center
BV	Beter verwagting
CARDI	Caribbean Agricultural Research Development Institute
CARICOM	Caribbean Community
CDB	Caribbean Development Bank
CIDA	Canadian International Development Agency
CIF	Cost Insurance and Freight
CPI	Consumer Price Index
CXC	Caribbean Examinations Council
EBE	East Bank Essequibo
ECD	East Coast Demerara
EEC	European Economic Community
EPI	Expanded Program on Immunization
ERP	Economic Recovery Program
FAO	Food and Agriculture Organization
FCPMP	Food Crop Production and Marketing Program
FITUG	Federation of Independent Trade Unions of Guyana
GAC	Guyana Airways Corporation
GAHEF	Guyana Agency for Health Science, Education, Environment and Food Policy
GAIBANK	Guyana Cooperative Agricultural and Industrial Bank
GAPA	Guyana Agricultural Producers Association
GCCS	Guyana Cooperative Credit Society
GCFA	Guyana Cane Farmers Association
GDP	Gross Domestic Product
GFL	Guyana Fisheries Limited
GLC	Guyana Liquor Corporation
GMC	Guyana Marketing Corporation
GNEC	Guyana National Engineering Corporation
GNPRGC	Guyana National Paddy and Rice Grading Center
GNRA	Guyana Natural Resources Agency

GNTC	Guyana National Trading Corporation
GPC	Guyana Pharmaceutical Corporation
GRB	Guyana Rice Board
GREB	Guyana Rice Export Board
GRFHS	Guyana Rural Farm Household Survey
GRMMA	Guyana Rice Milling and Marketing Authority
GRPA	Guyana Responsible Parenthood Association
GSFL	Guyana Stock Feeds Limited
GSL	Guyana Stores Limited
GTS	Guyana Transport Services
GUYMIDA	Guyana Manufacturing and Industrial Development Agency
GUYMINE	Guyana Mine Enterprise Limited
GUYSTAC	Guyana State Corporations
GUYSUCO	Guyana Sugar Corporation
IBRD	International Bank for Reconstruction and Development
IDA	International Development Association
IDB	Inter-American Development Bank
IFAD	International Fund for Agriculture Development
IICA	Inter-American Institute for Cooperation on Agriculture
IMF	International Monetary Fund
ISED	Institute of Small Enterprise Development
LIDCO	Livestock Development Company
MMA	Mahaicony-Mahaicony-Abary
MoA	Ministry of Agriculture
NARI	National Agricultural Research Institute
NDDP	National Dairy Development Program
NEOCOL	National Edible Oil Company Limited
NGOs	Non-Governmental Organizations
RA	Regional Administration
RMMA	Rice Regulation of Manufacturing and Marketing Act of 1985
RPA	Rice Producers Association
SIMAP	Social Impact Amelioration Program
SPS	State Planning Secretariat
UNDP	United Nations Development Program

UNICEF **United Nations Children's Fund**
USAID **United States Agency for International Development**
USA **United States of America**
WBD **West Bank Demerara**
WCD **West Coast Demerara**
YWCA **Young Women Christian Association**

GUYANA

I. OVERVIEW OF THE COUNTRY

1.1 Location and general features

Guyana, with an area of 215,000 square kilometers, is located in the north-western corner of South America and is bordered by the Atlantic Ocean to the north, Brazil to the southwest and south, Suriname to the east and Venezuela to the west. Its natural resources base includes forests, gold, diamonds and bauxite. Its economy is based primarily on the production and export of bauxite, sugar and rice.

The country has a population of 755,300 inhabitants (1988 figure), 71.7 percent of whom live in rural areas. The total population annual growth rate has declined steadily from 2.0 percent in 1971-80 to 0.6 percent in 1981-89; the rural population growth rate averaged -0.3 percent during the 1981-89 period. A high level of emigration and a decline in the crude birth rate were the main factors responsible for these negative trends. Thus, Guyana is a sparsely populated (3.5 inhabitants/square km) predominantly rural country.

During the last decade, nutrition and health standards declined sharply; literacy indices fell from 91.3 percent in 1980 to 81 percent in 1989; the crude death rate increased during the 1979-86 period, as did the infant mortality rate, which rose from 33.5 to 49 per 1000 live births. Nutritional deficiency was the leading cause of death in children in 1984; life expectancy has stayed relatively constant over the past forty years. Guyana's serious socioeconomic problems led to its being ranked, in 1989, below Haiti as the poorest country in the Western Hemisphere.

1.2 Climate

Guyana's climate is hot, with only slight temperature variations throughout the year. The average annual temperature and rainfall in Georgetown are 27°C and 2,230 mm, respectively; however, winds from the northeast cool the coast.

1.3 Topography

The country has a coastal plain that is 430 km long and 15-65 km wide, and lies seven feet below sea level. This is the agricultural zone, where most of the population lives. Almost all mineral wealth is located in the interior areas of the country. Mountains and savannahs are characteristic of a large region in the south and west. The Essequibo, Corentyne, Demerara and Berbice are the country's most important rivers; all flow from the south and empty into the Atlantic Ocean. Drainage is poor as a result of adverse soil conditions and an average gradient of only one foot per mile.

1.4 Political aspects

Guyana gained its independence from Great Britain in 1966, and in 1970 became a cooperative republic within the British Commonwealth. Shortly after independence, nationalization of key economic activities took place. This happened in many sectors, including sugar and bauxite, which are the most important providers of foreign exchange for the country. The substantial involvement of the public sector in the economy has been one of the main factors responsible for the serious political and economic instability the country has suffered throughout the years.

The Constitution of 1980 established a socialist and non-alignment philosophy of government. The main deliberative bodies are the National Congress of Local Democratic Organs, the Parliament and the Supreme Congress of the People. A Presi-

dent elected through universal adult suffrage and his Cabinet constitute the executive power.

A socialist, Forbes Burnham, governed Guyana for 21 years, from 1964 until his death in 1985. He was succeeded by the Prime Minister, Desmond Hoyte. Elections are scheduled for September or October 1991.

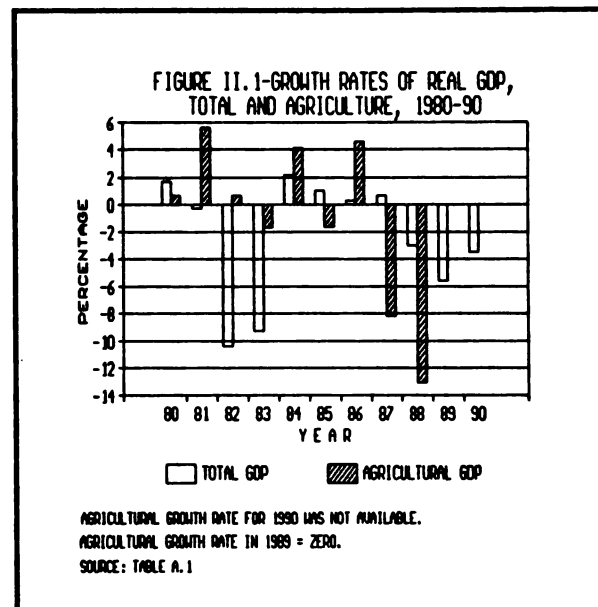
II. MACROECONOMIC PERFORMANCE

2.1 Production and economic growth

Guyana's economy has been stagnant for a relatively long period of time. During the 1970s, real GDP showed an average annual increase of 0.9 percent, while during the 1980s, the average annual growth rate was -2.3 percent. To some extent, the official data may reflect a shift of activities out of the formal sector, but poor economic performance has been an undeniable reality of the last few decades.

Real GDP showed a downward trend during the 1980-83 period, with marked reductions in 1982 and 1983, mainly as a result of a sharp contraction in the bauxite sector (Figure II.1). The economic recession was halted in 1984, but the recovery was aborted and economic activity remained virtually stagnant in 1985-86. The economic crisis worsened again towards the end of the decade. Real GDP declined by approximately 3 percent in 1988, and instead of growing by a projected 5 percent in 1989, it actually fell by about the same percentage. In 1990, economic activity declined again (3.5 percent), as the government began to implement an adjustment program negotiated with IMF and the World Bank.

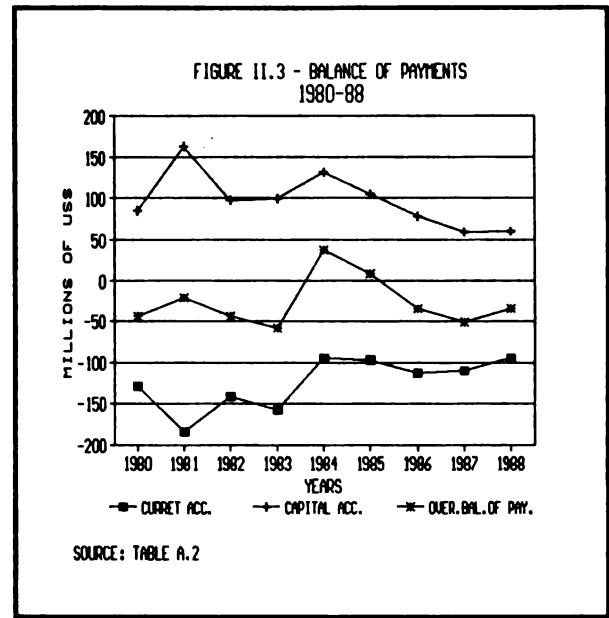
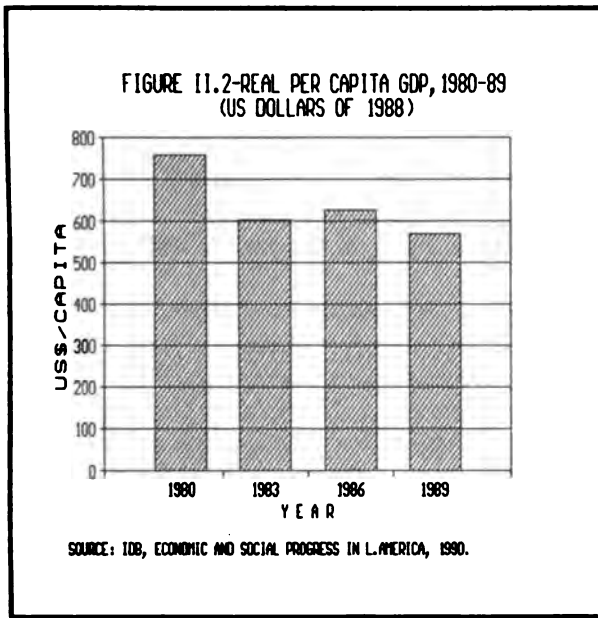
The economic stagnation of the Guyanese economy during the 1980s was caused



by several factors, including the following: (i) world-wide recession combined with the increase in both oil prices and international interest rates; (ii) serious deterioration in the country's terms of trade; (iii) increasing government intervention in the economy; (iv) shortage of foreign exchange to provide essential imported inputs; (v) poor pricing and trade policies aimed at facilitating economic adjustment; and (vi) social and political unrest involving frequent disruptions of production.

Despite the large-scale migration of the 1980s, per capita GDP fell at an average annual rate of 3.2 percent in 1980-89. This was one of the greatest declines suffered by any country in the world during that period. As Figure II.2 shows, real per capita GDP fell from US\$ 759 in 1980 to US\$ 568 in 1989, while total population declined from 758,000 to 755,000. Thus, during the 1980s, the average standard of living deteriorated at a rate of 3.2 percent per year.

With regard to the sectoral composition of the GDP, the primary sector showed a relative decline (from 40 to 36 percent) in the 1980-89 period, while the



share of services increased. The reduction of the primary sector's contribution to GDP was the result of a sharp drop in bauxite production, which was not able to recover its initial 16.5 percent participation in GDP during the 1980s (Table A.1). At the end of the decade, the primary sector displayed its lowest contribution to GDP (35 percent), while services continued to account for the largest share. The contribution of the secondary sector to GDP declined significantly during the 1980s.

2.2 Balance of payments

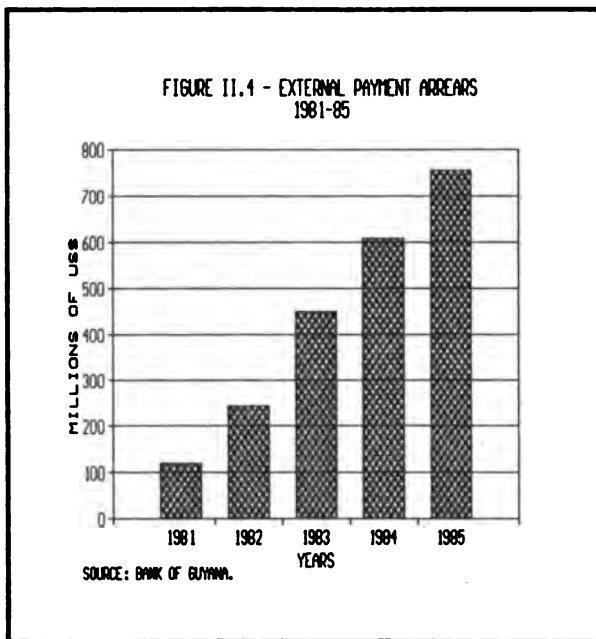
The deterioration of Guyana's balance of payments which began in the second half of the 1970s continued throughout the 1980s, placing a major constraint on the country's economic development. As Figure II.3 shows, during the first four years of the 1980s, the current account registered huge deficits (32 percent of GDP, on average), which were caused, to a large extent, by the worsening of the trade balance.

During this period, both exports and imports fell drastically (Table A.2). Exports

declined as a result of a contraction in foreign demand for bauxite and alumina, a drop in the international price of sugar and a deterioration of the terms of trade. The drop in imports was due to cuts in the country's foreign purchases made necessary by balance of payments difficulties. In spite of the reductions in imports, however, the cutback in export earnings was substantially larger, and resulted in trade deficits of 3 to 10 percent of GDP.

Although during the first half of the 1970s, the current account deficit was financed by capital inflows, this was not the case during most of the 1980s. Specifically, since the country's international reserves were depleted and the availability of external funds was drastically curtailed (particularly after 1981), the government financed the current account deficit by accumulating external arrears. As Figure II.4 shows, during the 1981-85 period, external payment arrears showed a marked increase, from US\$ 118 million in 1981 to US\$ 754 million in 1985¹.

¹ These figures correspond to 23 and 166 percent of Guyana's GDP, respectively.



In contrast to the situation of the early 1980s, the trade balance showed a somewhat better performance during the 1984-88 period owing to the continued reduction of imports and a modest growth of export earnings². Despite this, however, the current account balance remained negative throughout that period because of a considerable recurrent deficit on the service balance. At the same time, the capital account experienced a rapid deterioration, mostly because of declining foreign loans to the public sector and the virtual nonexistence of private capital inflows. Thus, the negative performance of the current account, together with the deterioration of the capital account, resulted in overall balance of payment deficits during 1986-88 (Figure II.3).

In an effort to improve the balance of payments position, the government of Guyana adopted several measures in 1989 (see section III), which, however, did not lead to a substantial improvement in the external accounts. The merchandise balance showed

² Exception should be made to 1986 when a deficit of US\$ 2.4 million was observed.

a deficit, which added to a higher than usual negative balance on the service account increased the current account deficit (Figure II.3). In contrast to previous years, approximately 67 percent of the deficit was financed by debt rescheduling with the Paris Club and by a certain amount of bilateral balance of payments support³.

Other important reforms aimed at improving the performance of the current account were implemented in 1990, including continued devaluation of the domestic currency within the framework of an Economic Recovery Program prepared by the government in cooperation with the IMF and the World Bank. Although a deficit in the current account was anticipated for that year, it seems that a relatively weaker performance of the main exports may have resulted in a worse balance of payments situation than expected.

Inability to pay the debt service has meant that only limited amounts of foreign aid have been available to Guyana. Consequently, payment of accumulated arrears and debt rescheduling played a very important role during 1989 and 1990, and continue to do so in 1991. Although there were problems in obtaining new external funds in 1990, it is expected that new funds from international financial institutions such as IMF and the Inter-American Development Bank (IDB) will be disbursed in 1991.

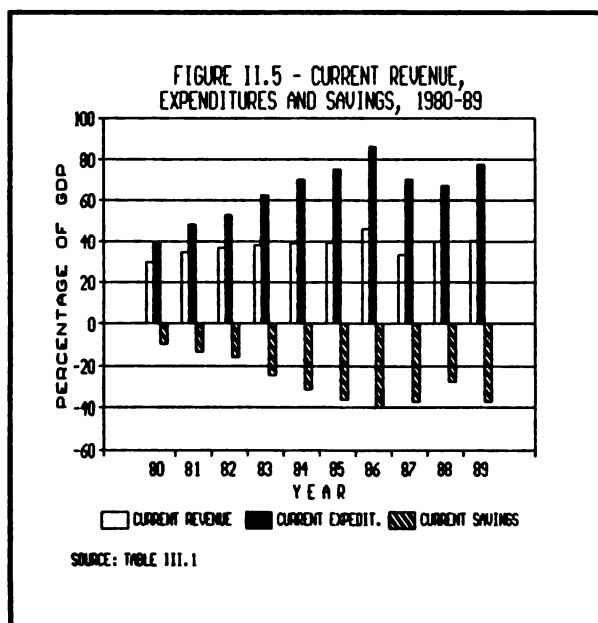
2.3 Public finance

The participation of Guyana's public sector in the country's economy increased substantially beginning in 1970, and by the late 1980s, represented about 80 percent of all economic activity. This dramatic expansion of public-sector involvement in the

³ According to the Inter-American Development Bank, "Guyana was able to reschedule some G\$ 782 million out of G\$ 1,185 billion targeted in the stabilization program and it obtained G\$ 28 million as bilateral balance of payments support."

economy was associated with a process of nationalization by which public enterprises assumed a major role in the economy. About 30 public enterprises were responsible for bauxite mining, sugar production, transport and shipping, public utilities, civil engineering and construction, domestic and export trading, pharmaceuticals, soaps and detergents, fishing and fish processing, petroleum marketing, logging and saw milling, food products and cooking oil, rice milling and marketing, livestock and dairy production, and liquors. In the mid-1980s, public enterprises accounted for about 50 percent of GDP, 80 percent of exports and 60 percent of public sector employment.

The expanded role of the government resulted in a firm increase in current expenditure, from almost 40 percent of GDP in 1980 to 86 percent in 1986, while public revenues grew from 30 to 46 percent of GDP. As a result, public current savings declined from -9.7 percent of GDP in 1980 to -40.0 percent in 1986, and the overall public sector deficit rose from 30.8 percent to 54.8 percent of GDP during the same period.



During the 1980-86 period, the government implemented a series of measures aimed at keeping public finance under control. Such measures included: (i) a wage freeze in 1981-83, to reduce wage outlays; (ii) labor retrenchment, to reduce overstaffing (from October 1981 to mid-1982, approximately 17 percent of central government employees were laid off); (iii) management of the domestic debts; (iv) simplification of the consumption tax rate structure (by reducing the number of rates from twenty-nine to three); and (v) reorganization of several public enterprises. These measures failed to reduce the deficit of the nonfinancial public sector, inasmuch as key elements, such as tax measures and expenditure cuts, were either missing or attenuated because of political opposition.

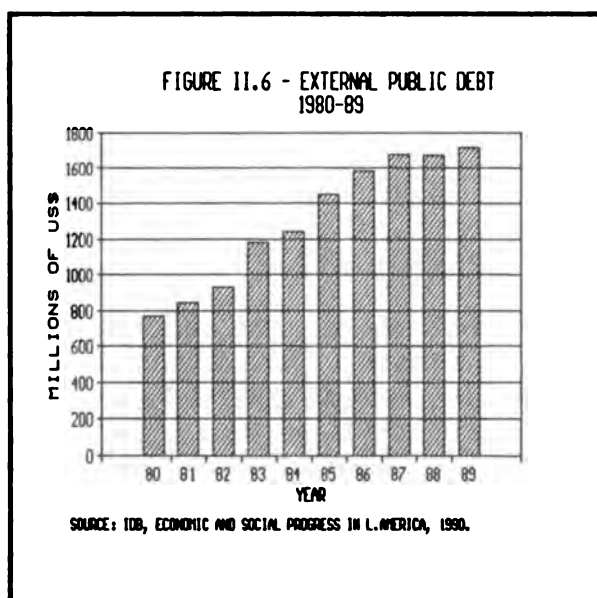
From a sectoral standpoint, some positive results were obtained with regard to improvements in the performance of the main public enterprises, such as GUYSUCO, GUYMINE, GRB and GUYSTAC⁴. Thus, the overall balance of all public enterprises shifted from a deficit of 12 percent of GDP in 1983 to a surplus of 5.5 percent in 1987.

Despite the improved performance of public enterprises, government finances continued to worsen throughout most of the second half of the decade. Public saving remained highly negative, although it did experience a short-lived improvement in 1988 as a result of tax reforms and the elimination of some public enterprises. But, as central government expenditures increased and projected revenues failed to materialize, particularly those from the sugar and bauxite enterprises, the public deficit jumped from 37 percent of GDP in 1988 to

⁴ The GUYSTAC group encompassed thirty public enterprises in the areas of agriculture, industry, training, transportation and utilities. Between 1984 and 1987, the number of GUYSTAC's enterprises with negative balance was reduced from 11 to 9.

47 percent in 1989, and public savings declined from -27 to -37 percent, respectively.

The laxity of tax administration has been one aspect of a more general weakening of institutional management and control in the public sector. This, together with the growth in the informal and untaxed economy, further worsened the fiscal position and contributed to the inflationary financing of increasingly large public deficits. The major sources of public deficit financing have shifted over time from external to internal lenders. During the 1970s and the early 1980s, foreign borrowing caused the external public debt to grow steadily (Figure II.6), bringing its service to unsustainable levels, and creating a substantial accumulation of arrears.



In the 1980s, as access to external funds became restricted, the government was increasingly forced to finance the public deficit through domestic borrowing. Thus, domestic interest payments became a substantial share of total government expenditures. Moreover, Guyana's external public debt and debt service burden have risen to extremely high levels in relation to

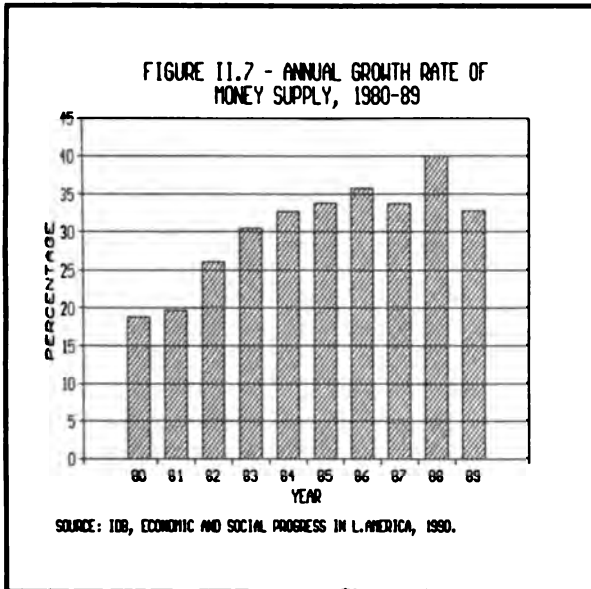
public revenues and GDP. Since most public expenditures (55 percent) are now accounted for by a growing domestic and external debt service, a long-term adjustment process will be required in order to bring about an improvement of the fiscal balance.

2.4 Money, credit and prices

The money market in Guyana has been small, and the capital market is poorly developed. Like other sectors, the official financial system is mostly state-owned; this includes the Bank of Guyana, six commercial banks, and two development banks. In addition to these official institutions, there are several private non-banking financial institutions engaged in mortgage finance, trust and insurance, and pension funds.

The Bank of Guyana has traditionally intervened in the economy by regulating interest and exchange rates, pursuing selective credit policies, establishing capital controls and financing the large public deficit. The increase in the deficit of the nonfinancial public sector has been a major constraint preventing the Bank of Guyana from pursuing a monetary policy consistent with price stability and balance of payments equilibrium.

Given this situation, movements of monetary aggregates in Guyana have been largely determined by the poor performance of the public sector, which has resulted in increased domestic borrowing requirements. Net domestic credit to finance the public deficit is obtained mainly by sales of treasury bills to both commercial banks and the Bank of Guyana. The increase in the Bank of Guyana's holdings of treasury bills has expanded the money supply, building up liquidity for further commercial bank loans to the public sector. During 1980-87, while the annual growth rate of money supply jumped from 18.8 to 34 percent (Figure II.7), the private sector's holdings



of financial assets increased rapidly, to about 140 percent of GDP, and the commercial banks' holdings of central bank deposits and treasury bills totalled almost three times the amounts required by central bank regulations.

Guyana has a tradition of regulating interest rates. During most of the 1980s, this led to negative real interest rates, a situation which was also brought about by operating conditions on the financial markets. Specifically, the excess liquidity of the commercial banking sector also contributed towards holding down interest rates. Thus, although interest rates were raised from time to time, the increases lagged behind inflation, and hence, the price of credit remained negative in real terms.

The most important feature of price policies in Guyana has been the imposition of price controls which have created serious distortions in resource allocation. In the past, there were three broad categories of price régimes: (i) controlled prices, which were directly determined by the government; (ii) indicative prices, which were negotiated between the government and trading entities; and (iii) freely determined

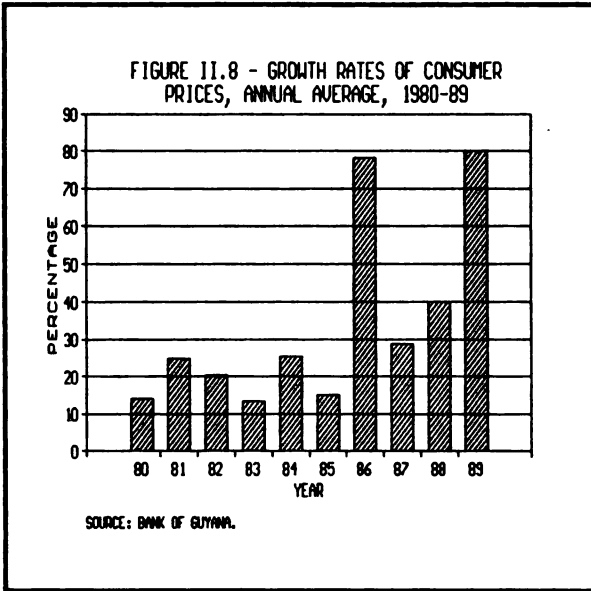
market prices. Among other things, the government also set the prices of the main services, such as medical care, education, transport and communications.

The enforcement of price controls has been facilitated by the large scale involvement of the government in various economic activities. Efforts to enforce price controls, however, contributed to a growing black market, since the controls led to a reduction in private production and a shift of available supplies to clandestine exports. To some extent, supply was also shifted to the domestic black market. Black-market prices could also be further raised by hoarding in anticipation of official price increases.

The range of price controlled items was reduced during the mid-1980s, as the government seemed willing to change its economic policy orientation (see section III). During 1984-87, public sector prices and utility rates were increased to reduce consumer subsidies and distortions in resource allocation. Nevertheless, the price increases were somewhat moderate in order to protect lower income groups.

The existence of great price distortions in Guyana became evident towards the late 1980s, when the Consumer Price Index (CPI) rose sharply (by 40 percent in 1988 and 80 percent in 1989, Figure II.8) as a result of the implementation of price-liberalization and currency-devaluation measures included in the government's adjustment program⁵. Price controls were reduced significantly, and are now limited to essential items, such as edible oil, detergent, laundry soap, margarine, matches, powdered milk, petroleum products, rice, salt and sugar.

⁵ It should be noted that the CPI does not accurately reflect the movements of the general price level, since it leaves out the price variations of several products contained in the consumer basket. Some of these products are purchased on the parallel market, which has a price system of its own.



2.5 Employment and wages

The public sector has been the major employer in Guyana over the last 15 years. Nevertheless, in view of the deterioration of various public institutions, the number of individuals employed by the government has decreased. Between 1980 and 1986, the public work force was reduced from approximately 99,000 to 78,000 employees (Table II.1). This downward trend also occurred in public agricultural institutions, particularly the Guyana Sugar Corporation (GUYSUCO), which in 1986 accounted for 35 percent of all government jobs.

Wages and salaries have been the second largest expenditure item in the government's budget, and an important source of fiscal imbalance. Thus, government intervention in the labor market has been oriented towards freezing wages and implementing labor retrenchment plans. During the 1981-83 period, efforts were made to reduce outlays for wages and salaries through labor retrenchment measures (1981-82) and wage freezes (1982-83). These measures resulted in significant real wage losses (Table II.1) and the laying off of approximately 17 percent of the central

TABLE II.1. GUYANA: EMPLOYMENT, WORK STOPPAGES AND WAGES IN THE PUBLIC SECTOR 1980-86

	1980	1982	1984	1986*
TOTAL EMPLOYMENT	98,848	83,754	78,106	77,824
NUMBER OF STRIKES				
Sugar Ind.	333	653	493	220
Other	276	639	480	219
Other	57	14	13	1
WORKERS INVOLVED				
Sugar Ind.	40,652	81,564	60,300	26,632
Sugar Ind.	35,475	80,373	58,779	26,632
Other	5,177	1,191	1,521	--
MAN-DAYS LOST				
Sugar Ind.	67,620	140,744	152,000	88,937
Sugar Ind.	60,593	127,987	144,157	88,937
Other	7,027	12,757	7,843	--
WAGES LOST (G\$ Million)				
Sugar Ind.	1.2	3.3	3.4	--
Sugar Ind.	1.1	3.1	3.3	1.3
Other	0.1	0.2	0.1	--

* January-July.

SOURCES: Ministry of Labor, State Planning Secretariat and GUYSUCO.

government work force, in order to reduce overstaffing. During the remainder of the decade, the public sector carried out a stringent wage policy, which resulted in constant real wage losses for public employees and high rates of unemployment. The income distribution resulting from the 1980-84 wage policy implied that about 45 percent of all public sector employees earned less than G\$ 500 per month (US\$ 120).

Traditionally, Guyana has not had clear rules for implementing wage rate adjustments. Thus, strikes have been a frequent occurrence, resulting in the loss of many workdays (Table II.1). In addition, negotiations between the government and the trade unions have been extremely protracted. This scenario resulted in a 64 percent decline in real wages during the 1977-

89 period, and high emigration levels among the young and the well educated.

The high turnover rate and the large number of vacancies in positions calling for qualified public managers and technical staff have greatly affected the performance of the public sector. Vacancies have been filled with under-qualified personnel who lack the required expertise for the job. To alleviate this problem (See Section III), the Economic Recovery Program (ERP) defined a set of measures to attract and retain top professionals into public service. These measures include reviews of salary scales and the establishment of salary subsidies for key positions.

Although official statistics on unemployment are scarce in Guyana, informal surveys for 1987 showed an estimated overall unemployment level of 13.2 percent, with 31.6 percent in the 15-to-19-year-old group and 30.0 percent in the 20-to-24-year-old group⁶. These high rates of unemployment among youth led the the government to provide training in specific skills in order to increase employment opportunities for that segment of the population.

III. RECENT ECONOMIC POLICIES

In terms of economic policy orientation, the 1980s can be divided into three subperiods: (i) 1980-84, characterized by great macroeconomic instability; (ii) 1985-88, marked by a redressing of the economic approach; and (iii) post-1988, when economic policy was strengthened within the framework of an adjustment program supported by the IMF and the World Bank.

3.1 Macroeconomic instability: 1980-84

A main feature of Guyana's economic policy has been a burgeoning and overly

⁶ These surveys were reported by the United Nations Latin American Demographic Center.

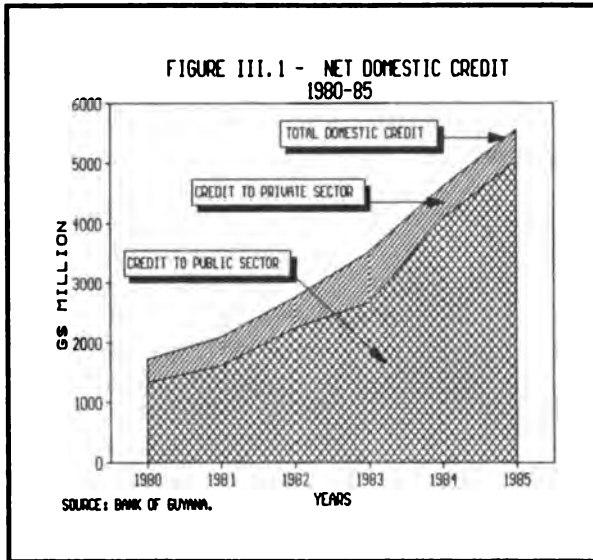
interventionist public sector. The government's growing control over the economy started in 1970 with the nationalization of key economic activities (the bauxite and sugar industries).

In the 1970s, nationalization increased the government's control over the economy; at the same time, the private sector was miniaturized through the establishment of public monopolies, price controls and restrictive trade and licensing practices that protected public sector entities.

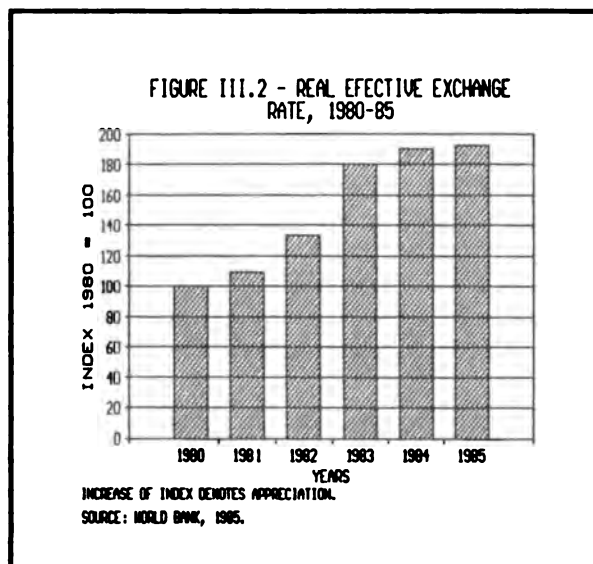
The increasing size and the complexity of the public sector were important factors in the weakening of controls over spending and revenues. Public expenditures rose rapidly, reflecting a loss of efficiency of public corporations and a sharp increase in the wage bill as a result of the growing participation of the government in economic activities. Public revenues fell as a consequence of the serious deterioration of the terms of trade of bauxite and sugar, and due to a dramatic expansion of the informal sector. Fiscal laxity resulted in an overly expansionary economic policy, as reflected in the rapidly growing deficit of the nonfinancial public sector (Table III.1).

The monetary policy was aimed at accommodating fiscal imbalances. The public deficit was financed by external credit and by the sale of treasury bills to the Bank of Guyana, which led to a rapid build-up of excess liquidity in the financial system. Thus, commercial bank credit expanded rapidly to meet the growing financial requirements of the nonfinancial public sector (Figure III.1); this was also facilitated by the narrowing of investment opportunities for the private sector.

Efforts to control the inflation caused by activist monetary and fiscal policies resulted in widespread exchange rate and price controls. Almost 30 percent of the goods and services included in the



consumer price index were controlled, what contributed to severe distortions in resource allocation. Moreover, the Guyanese dollar remained virtually unchanged during the 1975-84 period (a single devaluation of 15 percent occurred in June, 1981); this led not only to a serious deterioration of international competitiveness, but also to a major shift of transactions into the parallel foreign-exchange market (Figure III.2). Thus, the efforts to reduce inflation by enforcing price and exchange rate controls only aggravated the economic crisis, since



they contributed to a decline in production, a balance of payments disequilibrium and a shift of demand and supply to a growing black market.

The government's response to the internal and external crisis included the implementation of an adjustment program supported by: (i) an IMF Extended Fund Facility arrangement in 1978; (ii) a three year IMF Extended Fund Facility in 1979; and (iii) a World Bank structural adjustment loan in 1981. Considerable political and economic instabilities weakened this attempt to implement consistent economic policies. Parallel to these factors, the availability of foreign financing enabled the government to continue its expansionary policies rather than implement the necessary adjustments.

After the failure of the 1978-81 adjustment efforts, pressure on the balance of payments intensified as a result of both a decline in export earnings and a reduction of external financing. The cut-off of voluntary financing from abroad after 1982 was not accompanied by a return to monetary and fiscal discipline but rather by a continuation of expansionary domestic policies. Public spending and revenues were not correspondingly adjusted to face the reduction in the availability of foreign financing for the public sector. Thus, the drying up of external financing in the early 1980s reflected in increased domestic credit to finance the fiscal deficit.

The combination of expansionary domestic policies with balance of payments pressures resulted in higher black-market prices and in large depreciation of the parallel market exchange rate. In response to that situation, the government tightened the price controls, as well as the exchange rate and trade restrictions. This encouraged the diversion of trade from official markets into informal channels, while output and exports continued to decline, overstating

the weaknesses of the economy during the first half of the 1980s.

3.2 Redressing the economic approach: 1985-88

Beginning in 1985, the government of Guyana took steps to redress its economic approach. A number of economic measures were launched after a newly elected government took office in 1985, replacing Forbes Burnham, who had governed Guyana for 21 years. The new measures were aimed at reducing the economic deterioration experienced by the country in previous years, and eliminating the serious domestic and external imbalances of the economy. More specifically, they were designed to restore fiscal and monetary discipline and to provide incentives for efficient production through trade liberalization.

The policies adopted included a number of elements aimed at tackling the large financial imbalances. The government promoted a cut in capital expenditures and introduced income tax reforms. Longer-term measures to reduce the role of the public sector in the production of goods and services were also initiated. Steps were taken to rehabilitate plants and equipment in the bauxite industry in order to improve its efficiency and competitiveness. Prices of goods and services provided by the non-financial public sector were raised. Inefficient sugar mills were closed and the land formerly planted in sugar cane was diversified into other crops. Furthermore, the GUYSTAC group, which included almost thirty enterprises operating in agriculture, industry, trading, transportation and utilities, was restructured to establish clear criteria for public enterprise management on a commercial basis. These actions, combined with the trade liberalization measures, improved the economic performance of public enterprises, and at the same time strengthened public sector finances.

The liberalization of prices, interest rates, official exchange rate and wages were also part of the intended move towards a less regulated and more open economy. Some improvements in the structure of relative prices were achieved through an exchange rate devaluation of 56 percent in 1987 and a reduction in import restrictions and quotas. A secondary foreign exchange window was established in commercial banks, as a means of boosting non-traditional and high valued exports through the official market. In addition, exporters were permitted to retain part of their foreign exchange earnings in order to buy imported inputs and spare parts. Some relaxation of price controls was undertaken in 1985-86, and nominal interest rates were increased from 14 to 35 percent.

Although the above measures were a step in the right direction, they failed to reverse the stagnation of the Guyanese economy. The authorities did not design and introduce the economic measures as a comprehensive package to be executed over a short period of time. The measures were implemented throughout the 1985-88 period in a nonsystematic manner through a process marked by some policy slippages and a temporary relaxation which reversed the real adjustment that had been announced.

In several cases, increases in public prices and utility rates were partial or curtailed for political reasons. Foreign exchange windows for the purchase of foreign currency remained open in commercial banks in 1986-87, but were subsequently closed as the free market rate diverged from the rate offered by the banks. Fiscal reforms had a significant impact on the finances of public enterprises but were insufficient to overcome the impact of the fiscal policies, which continued to be strongly expansionary. Thus, as Table III.1 shows, the central government's deficit increased from 40 percent in 1983 to 51 percent in 1987.

TABLE III.1 - GUYANA: PUBLIC SECTOR FINANCES, 1981-89
(PERCENTAGE OF GDP)

CENTRAL GOVERNMENT	1981	1982	1983	1984	1985	1986	1987	1988	1989*
Current Revenues	34.7	36.8	38.3	38.7	39.0	46.2	33.2	39.9	40.3
Current Expenditures	48.2	52.7	62.4	70.1	75.1	86.2	70.3	67.2	77.5
Current Savings	-13.5	-15.9	-24.1	-31.4	-36.1	-40.0	-37.1	-27.3	-37.2
Capital Expenditures	18.1	15.0	11.8	12.1	18.3	12.8	15.0	10.2	11.4
Deficit or Surplus	-37.0	-34.3	-39.6	-42.6	-53.7	-54.8	-51.1	-37.0	-46.8
Domestic Borrowing	11.4	19.4	11.4	38.0	45.0	49.6	44.2	31.3	34.9
Foreign Borrowing	25.6	14.9	25.6	4.6	8.6	5.2	6.9	5.7	11.9

* Preliminary estimate.

SOURCE: IDB, Economic and Social Progress in L.America, 1990.

The deterioration of public finance, the large distortions in relative prices, the loss of international creditworthiness, the growing private sector uncertainty about the course of economic policy, and the social unrest evidenced in frequent strikes continued to characterize a deep economic and financial crisis. Thus, although some of the measures adopted during 1985-88 had a temporary positive impact, they did not succeed in re-establishing the economic foundations that are essential for sound economic growth.

3.3 Economic adjustment: 1989 and beyond

In response to an increasingly difficult economic situation, the government announced its intention of strengthening economic policy through a comprehensive adjustment program. As a major step towards redressing the economic strategy followed, the authorities initiated negotiations with the International Monetary Fund and the World Bank. In late 1988, the government, in cooperation with officials of those institutions, drew up the Economic Recovery Program (ERP), which proposes medium and long-term solutions to Guyana's economic problems.

The broad objectives of the ERP were to: (i) eliminate severe domestic and exter-

nal imbalances, providing a basis for sustained economic growth; (ii) reduce inflation; (iii) incorporate the parallel economy into the official economy; and (iv) normalize relations with the international financial community. These objectives would be achieved through the implementation of a specific set of policies centered on a sharp reduction of the public deficit. In addition, the policy package was designed to accomplish adjustment with minimal government controls, to reduce the state's role in the economy and to open it up to market forces.

The ERP was first submitted to the National Assembly and subsequently (in early 1989), it was officially submitted to IMF. Although some adjustment measures were undertaken in 1988, the policy and institutional reforms provided for in the agreement with the IMF and the World Bank were delayed, and it was not until 1990 that they began to be gradually implemented.

Under the ERP, the liberalization of the market was intended both to alleviate the major distortions introduced by previous controls and to enhance confidence in economic management and future prospects. A flexible and more realistic exchange rate was pursued by means of an initial devaluation of 230 percent, which reduced

the premium on the parallel market from 80 to 25 percent. Moreover, in March 1990, the government announced a floating secondary foreign exchange market. Increased reliance on market forces was pursued through a reduction of price controls, trade and import restrictions. Financial policies were liberalized in order to allow the commercial banks to freely set deposit and loan rates. The prices of goods and services produced and imported by the public sector were increased, in order to reduce consumer subsidies and to ensure an adequate return to public enterprises. In the context of the discussions with the World Bank and IMF, the government also obtained an important rescheduling of arrears at the Paris Club in 1989.

Although full economic recovery was not expected (deficits were projected for the balance of payments and for the public sector balance), the initial results of the ERP were somewhat disappointing. The economic situation remained fragile, and the recovery of private investments has been quite slow. A weak performance of key economic sectors resulted in a decline of the GDP in 1990, compared with the 4 percent growth envisaged in the program. The current account deficit widened, as imports grew steadily following the liberalization of the trade system. The divestment of public enterprises and the fiscal reforms aimed at rationalizing public sector finances proceeded slowly. Only two IMF quantitative targets associated with central bank reserves and net domestic assets were met in 1990.

During 1991, the status of implementation of the ERP remains subject to on-going negotiations between the government and the IMF. The latter, in spite of the performance problems encountered, has encouraged the authorities to strengthen the adjustment efforts. Disbursements from the Fund were expected for the first few months of 1991 in the context of the

continued pursuit of adjustment policies on the part of the Guyana government⁷.

IV. AGRICULTURAL POLICIES

4.1 Trade and pricing policies

Guyana is an open economy whose exports and imports, in 1988, amounted to approximately 120 percent of GDP. Three commodities -bauxite, sugar and rice- accounted for 80 percent of all exports recorded during that year.

During the 1980s, the government's trade policy consisted of severe restrictions on general imports and exports and a combination of fixed-unified and fixed-multiple exchange rate régimes, with adjustments being made at different intervals. Pricing policies for agricultural products and inputs were mainly based on official prices set by the government.

The acute foreign-exchange shortage of 1981 led the government to impose severe restrictions on imports of consumer goods, commodities and foodstuffs for which domestic substitutes were produced in sufficient quantities. In addition to this, the government also introduced a mechanism called "non-fund import license scheme", under which local companies that arranged for financing outside the official system were allowed to import inputs. Under this scheme, large amounts of consumer goods were also imported. The import-licensing system has been simplified under the Economic Recovery Program. As of December 1989, only sixteen food groups were under import prohibition and a revision was underway to further liberalize imports.

In the 1980s, the exchange rate policy was characterized by macro devaluations

⁷ The reforms to be undertaken in 1991 include: (i) increases in wages, salaries and pensions; and (ii) revision of the tax system.

from time to time, as well as changes in the currencies to which the country's exchange rate was pegged. Up to June 1981, the Guyana dollar was pegged to the US\$ at a rate of G\$ 2.55/US\$ 1.00. Then at the end of that month it was devalued (15 percent) and in January 1984, it was set at a rate of G\$ 3.75/US\$ 1.00. Two years later, the government introduced the concept of a basket of currencies, as originally announced in June 1981. The basket included five currencies: the pound sterling, the German mark, the Japanese yen, the French franc and the Dutch guilder. This system was conceived to stabilize the value of the Guyana dollar with respect to the basket of currencies and to adjust the exchange rate (G\$/US\$) only if the basket value moved outside a predetermined target level. Under this system, the exchange rate was devaluated in January and in October 1984; after that, the basket was revalued weekly to reflect the movement of the G\$ in terms of the basket of currencies. However, the authorities viewed the change in the value of the basket only as an indicator, and the exchange rate was not adjusted automatically.

Parallel to these changes in the exchange rate policy, in 1983, the government set the price of gold by using an implicit exchange rate of G\$ 4.90/US\$ 1.00; at the same time, it applied a higher rate for certain counter-trade arrangements. This set of exchange rates worked as a multiple exchange rate system up to April 1989, when the Guyanese dollar was set at a unified rate of G\$ 21.00/US\$ 1.00. In March 1990, a free floating exchange rate was established.

The pricing policy for agricultural inputs marketed by public distributors (GNTC and GUYSUCO) included a set of mark-ups on CIF prices to account for internal costs and middlemen's profits. Traditionally, the maximum mark-up allowed has been 44 percent, for machinery

and spare parts. In the case of agrochemicals, however, both wholesalers and retailers charged a 10-percent mark-up based on their costs cut-off⁶. After the 1989 devaluation of the Guyana dollar, that margin was lowered to 5 percent.

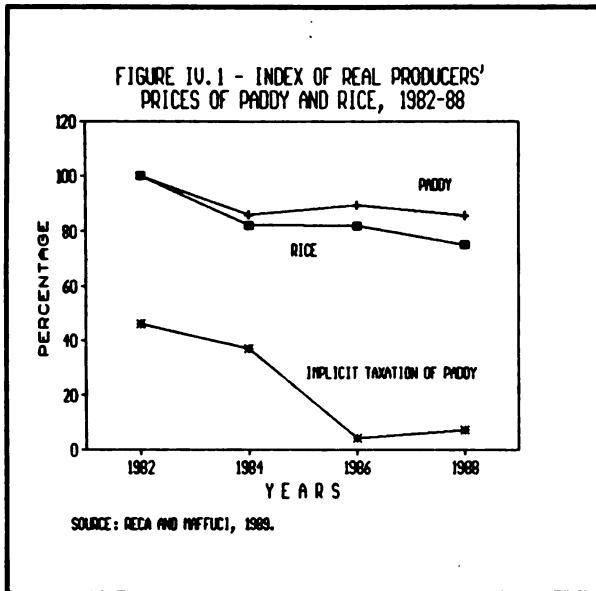
As far as rice is concerned, the price policy has been to fix official prices. Since 1985, the government has set producer and consumer prices; a special formula is used to establish a mandatory minimum price for paddy, as well as ceiling prices for wholesale and retail sales of different types of rice⁹. The minimum price for paddy is based on the average cost of production at the farm level, which in recent years has been, on average, 40 percent lower than international prices. This pricing mechanism, which does not take into account the international price of rice, has prevented farmers from responding to changes in rice prices on the world market. In addition, the official wholesale and retail prices of rice have been much lower than the prices charged by private distributors; the differences have resulted in speculative gains for middlemen rather than a real subsidy for consumers. Furthermore, during the 1980s, the real prices of paddy and rice showed a downward trend, so that rice became one of the cheapest foods for consumers. Recent estimates show that during the 1980s, paddy production was subject to heavy implicit taxation as a result of an overvalued exchange rate (Figure IV.1)¹⁰.

In brief, the utilization of the rice pricing mechanism has produced a set of negative consequences: (i) a 28.6 percent

⁶ The cost cut-off for wholesalers and retailers is the CIF price plus all expenses incurred in route to wholesalers' warehouses and retailers' stores, respectively.

⁹ For a full description of the rice formula, see Quezada, N. Guyana: Rice Price and Marketing Policy - A Needed Reassessment. Sigma Corporation, IDB, 1990.

¹⁰ After 1982, average taxation declined as a result of an increase in export prices rather than an increase in domestic prices.



decline in farmers' profits during the 1982-89 period, (ii) a 20 percent drop in paddy production in 1980-88, and (iii) an increase in parallel market transactions.

Sugar cane prices have also been set by formula; in this case, however, the export price plays an important role in the pricing mechanism. In contrast to rice, recent estimates¹¹ show that sugar cane production has not been taxed or subsidized as a result of the price policy.

Under recent economic policies, particularly those included in the Economic Recovery Program, the number of commodities that are subject to price controls has been reduced. The government plans to review the remaining list from time to time, with a view to allocating resources according to market forces.

4.2 Marketing and credit

Guyana's marketing policies have been concentrated on the two major agricultural

¹¹ Reza L.G. and Maffucci E.A., *Guyana: A Proposal to Reactivate Agriculture in the Context of New Macroeconomic Policies*, 1989.

commodities, rice and sugar. The current structure of government intervention in the rice industry is based on the Regulation of Rice Manufacturing and Marketing Act of 1985 (RMMA), which provides for the regulation of quantity flows and prices of paddy and rice. The RMMA stipulates which parties are legal agents entitled to perform rice transactions, the volume that may be transferred per time period, and the rules to be followed in setting prices in each type of transaction. The rice marketing policy is implemented by the Ministry of Agriculture and other public agencies.

The Guyana Rice Milling and Marketing Authority (GRMMA) regulates the milling and marketing of paddy and rice in Guyana. The paddy purchase price and the rice sales price are determined by the Ministry of Agriculture. The Guyana Rice Export Board (GREB) regulates exports of paddy and rice, and grants export licenses to millers. The National Paddy and Rice Grading Center (NPRGC) is responsible for grading paddy and rice and issuing the corresponding certificates.

Private millers are required to buy paddy from farmers at a minimum price, sell to wholesalers at a ceiling price, and sell to exporters at prices previously approved by the government. Private millers are also allowed to export directly, but every transaction must be approved by the government.

Guyanese rice enjoys preferential access to two regional markets: CARICOM and EEC. Guyanese rice is allowed to enter CARICOM markets free of duty, while non-CARICOM country members are subject to an *ad valorem* tariff of 15 percent. The access of Guyanese rice to the EEC is granted under a special import arrangement for the African-Caribbean-Pacific Countries (ACP) that are members of the Third Lomé Convention.

All sugar production has been marketed by GUYSUOCO since the mid-1970s. GUYSUOCO owns 80 percent of the sugar cane fields, controls all milling facilities, and has a monopoly on the country's sales of sugar production. The quota allocated to Guyana by the EEC is 165,000 tons; these sales generate approximately US\$ 80 million in foreign exchange. In addition, the country has a USA quota of 14,000 tons; however, in 1989, because of production shortfalls, it was unable to meet this quota.

Up until the late 1980s, Guyana's agricultural credit policy provided for the granting of loans at negative real interest rates. With the implementation of the Economic Recovery Program, however, the government has changed its policy guidelines, raising interest rates and allowing commercial banks to freely set loan rates. An additional feature of the credit policy is that during the 1980s, agricultural development was not constrained by the government's decision to reduce the availability of credit and raise interest rates, but rather by the lack of foreign exchange to import the inputs required.

V. RECENT EVOLUTION OF THE AGRICULTURAL SECTOR

5.1 General description and characteristics

Agricultural activities in Guyana are confined mainly to the Coastal Plain, an area occupied predominantly by sugar cane, rice and coconuts. Root crops, vegetables and tree crops are also produced in the region. Except for the declining beef cattle industry in the Rupununi Savannas and some cattle in the intermediate savannas, most of the livestock production takes place on the coast and in the wet savannas of Regions 4, 5 and 6 (Figure V.1).

No detailed study of land use in Guyana has been done since the agricultural census of 1968 and a rural farm household survey in 1978¹². There is no evidence to suggest that there has been a significant change in the pattern of land use since 1978, except that many small farms which were previously productive have been abandoned because of their lack of economic viability. Available FAO data likewise indicates no significant changes in the pattern of land use in the country. Data for 1988 shows that 2.5 percent of the total land area is under arable and permanent crops, 6 percent under permanent pasture and 83 percent under forest and woodland.

TABLE V.1 GUYANA LAND USE ('000 HA) 1961-88

ITEM	1961-65	1977	1988*
TOTAL AREA	21,497	21,497	21,497
LAND AREA	19,671	19,685	19,685
ARABLE AND PERMANENT CROPS	360	379	495
ARABLE LAND	350	364	480
PERMANENT CROPS	10	15	15
PERMANENT PASTURE	999	999	1,230
FOREST AND WOODLAND	18,190	18,190	16,360
OTHER LAND	122	122	159

SOURCE: FAO Production Yearbook (various issues)

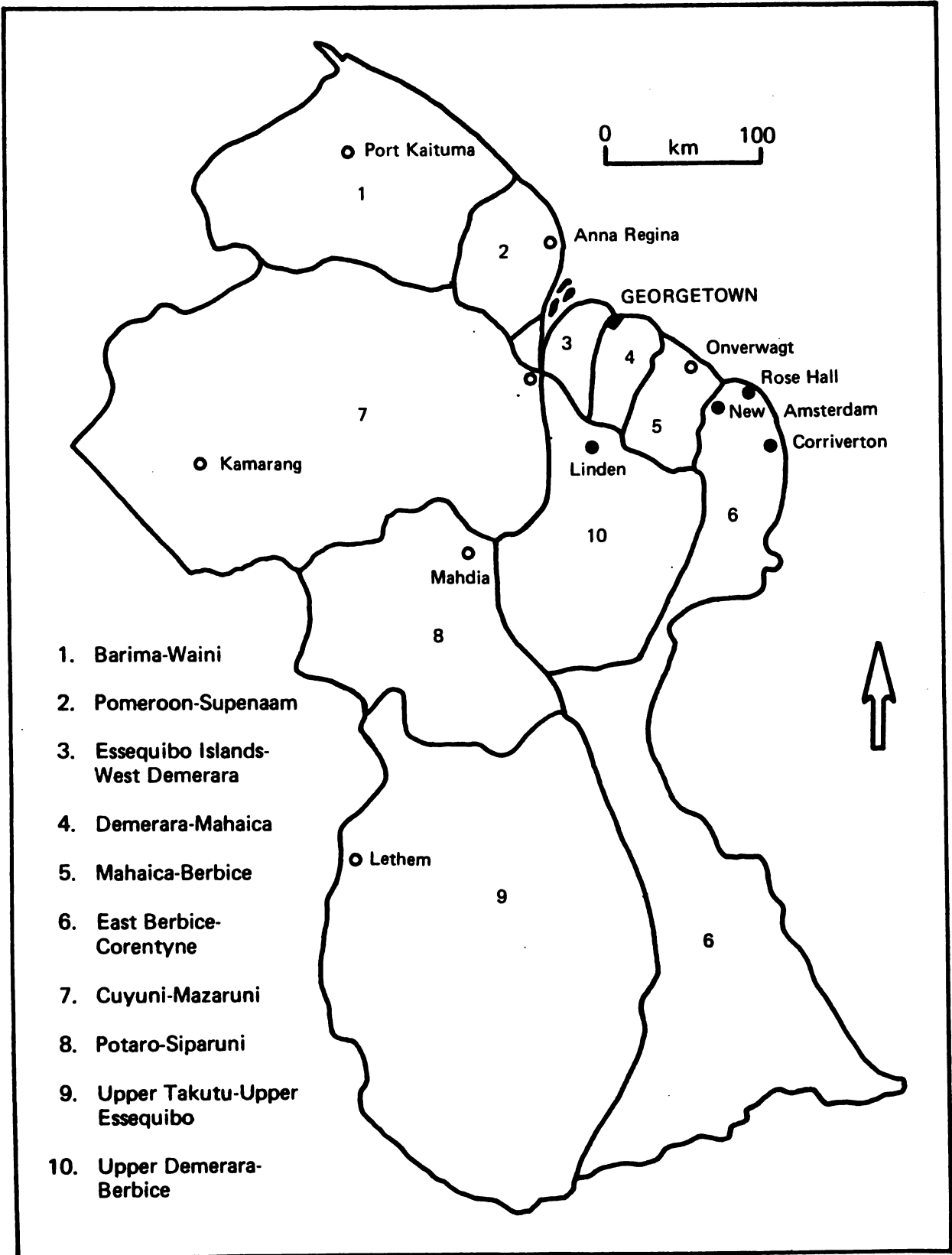
* ESTIMATES

Agriculture is the largest productive sector in Guyana in terms of primary production, employment and source of foreign exchange earnings. The sector also

¹² The results of the agricultural census of 1988 were not accepted as being final. The data is incomplete. As a result, the census of 1952 is considered as the last agricultural census in Guyana.

Figure No. V.1

Administrative Regions of Guyana



accounts for the largest portion of the domestic food supply. The organization of the sector is based on two main products: sugar and rice, which together occupy nearly 250,000 acres out of an estimated 340,000 acres under crops. They account for more than 50 percent of the value added in agriculture and more than 40 percent in manufacturing.

There are clear differences in the structure of the sugar and rice sub-sectors. Sugar is the largest economic activity in agriculture. It is characterized, predominantly, by large farms of more than 100 acres in size, which are managed by the Guyana Sugar Corporation (GUYSUCO), a public enterprise. GUYSUCO produces more than 90 percent of sugar cane output, the remainder coming from small private farmers.

Rice is the second largest agricultural activity. The sector is controlled by private farmers, who produce almost all of the paddy and process 60 percent of the rice, the remainder being processed by government-owned mills¹³. This sub-sector comprises nearly 70 percent of all farm households, and 80 percent of the farms are less than 15 acres in size. A few farms are over 500 acres in size and these have integrated operations with milling and marketing. Most of the area farmed under rice is below sea level and it requires a well functioning water control and irrigation system.

Private farmers also produce foodcrops for local consumption and raise livestock. The foodcrop sector has grown in recent years and a small but dynamic market has been developed for its output, particularly in the Caribbean.

With the exception of rice and sugar,

¹³ Although data is not available, it is estimated that the proportion of paddy presently processed by private mills is more than 50 percent.

the marketing and distribution of non-traditional agricultural products are private sector activities. Public sector involvement in marketing and transport of these products rapidly decreased after 1985, with the divestment of the Guyana Transport Services (GTS), a decline in the services provided by the Guyana Airways Corporation (GAC) and restructuring of the Guyana Marketing Corporation (GMC)¹⁴.

5.2 Performance

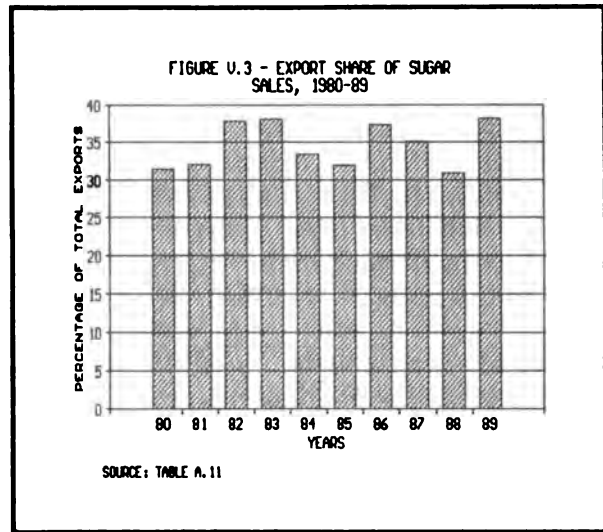
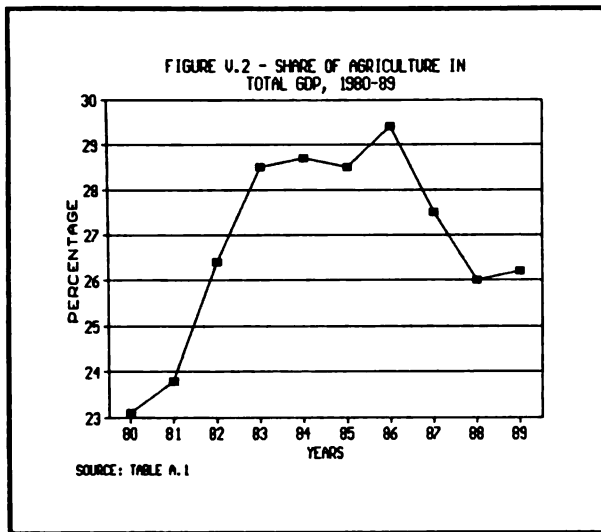
On average, the agricultural sector (including fishing and forestry) accounted for about a quarter of GDP in the 1980s. If sugar and rice processing are included, primary and agroindustry production contributed nearly 30 percent of GDP.

The sector's performance in the 1980s, if compared with that of the previous decade, indicates one of decline. With the exception of 1981, when sugar production exceeded 300,000 tons, the real output of the major crops, rice, sugar and meat, was lower than that of the 1970s (Table A.3).

The sector's performance during the 1980s can be divided into three sub-periods; one of marginal improvement in 1980-83, stagnation in 1984-86, and decline after 1987 (Figure V.2). In 1990, output of the major crops, sugar and rice, further declined by 21 percent and 33 percent, respectively.

The relatively poor performance of agriculture in the 1980s is a result of a number of factors. These include: pursuit of poor macroeconomic and sectoral policies; inefficient management of public sector entities in agriculture; a reduction in support services to the sector; deterioration to infrastructure, machinery and equipment;

¹⁴ The GMC was restructured in 1985 and it ceased purchasing and selling non-traditional products.



adverse weather conditions; and industrial disputes, particularly in the sugar industry.

5.2.1 Sugar

Of all the sub-sectors in agriculture, sugar is the most important, contributing, on average, with 10 percent of total GDP in the 1980s. If sugar cane processing is added, the industry's share is about 13 percent of GDP. Exports of sugar contributed between 31 and 38 percent of the value of domestic exports in the 1980s (Figure V.3). Around 85 percent of the output is exported, the EEC being the most important market. The sub-sector directly employs more than 22,000 people, which makes it one of the single largest employers of labor in Guyana.

Although various studies have shown that Guyana is a relative efficient producer of sugar and the country has a comparative advantage in this activity, most indicators suggest that the sugar sub-sector has been declining for the last 20 years.

The sector's performance in the 1980s has been extremely poor. With the exception of 1981, real output decreased on average by 6 percent per year; output for

1990 was 130,000 tons, the lowest recorded in the last 25 years. The area cultivated has been reduced from 149,000 acres in 1980 to about 111,000 at present. Indeed, the area harvested in 1989 represented a decline of 46 percent from that of 1980. Furthermore, output of sugar by private cane farmers in 1989 was 79 percent lower than that of 1982 (Table A.4)¹⁵.

In the 1980s, the industry experienced severe problems. Among them were a reduction in the US market quota; a fall in world sugar prices; a significant decline in the labor force for field operations and skilled labor for processing; shortage of foreign exchange for capital maintenance, rehabilitation and purchase of imported inputs; labor unrest and adverse weather conditions. Production has also been affected by the obsolescence of all the eight sugar mills operated by GUYSUCO. Other factors include diversion of investments from sugar production to other crops and the aging of cane ratoons which contributed to low yields.

The decline in output has affected the country's ability to meet its sugar quota in

¹⁵ Private cane farmers do not produce sugar. They sell their cane to GUYSUCO to be processed.

the EEC in the last few years, and, in 1988, sugar was imported for the first time.

5.2.2 Rice

Rice production and processing contributed between 5 and 7 percent of GDP; exports amounted to 6-12 percent of total domestic exports. The performance of this sector has also been very disappointing during the last decade. In 1989, the area planted was almost 34 percent below that of 1980. Real output declined on average by 4.4 percent per annum in the last decade and the average yield stagnated at approximately 0.8 MT/acre during most of the eighties (Table V.2). Indications are that small farmers have left their lands idle or rented them out to larger farmers.

YEAR	AREA REAPED (000 ACRES)	PRODUCTION (000 MT)	YIELD MT/ACRE	LOCAL CONSUMPTION (000 MT)*	EXPORTS (000 MT)
1980	258.4	168.9	.65	79.5	----
1981	228.0	165.6	.73	57.3	78.0
1982	239.5	181.9	.76	147.0	34.9
1983	187.4	150.0	.80	107.6	42.4
1984	229.7	182.5	.79	133.8	48.7
1985	194.0	156.1	.80	126.3	29.8
1986	207.4	171.0	.79	132.4	38.6
1987	185.6	146.0	.79	77.0	69.0
1988*	190.0	137.0	.72	56.0	55.9
1989	87.3	71.7	.82	31.1	40.6

SOURCE: GRMMA and GREB.

NOTE: * Computed as difference between production and exports.
LOCAL CONSUMPTION = DISSAPPEARANCE.

Exports declined from a level of 77,000 tons a year during the 1973-75 period to an average of 48,000 tons in 1984-88. However, despite low production in recent years, exports of rice have increased since 1987, averaging 55,000 tons per year. This is largely due to changes in the export policy and a more realistic exchange rate policy

initiated after 1985 (see section III). Prior to this, rice was increasingly traded through the parallel market resulting in significant differences between private and official prices and a large proportion of production not being accounted for.

Guyana has a strong comparative advantage in rice production and the sector has much export potential. It was estimated that at 1988 costs and yields, between G\$6.6 and G\$10.2 of domestic resources was required to generate one US dollar¹⁶. There is a large market for Guyana's rice in the Caribbean and exports are favourably treated on the EEC market.

Rice production has been severely affected by: (i) poor price and exchange rate policies which significantly taxed the sector; (ii) inefficient management and weak coordination between the various public sector entities operating in the sector; (iii) shortage of foreign exchange to purchase inputs¹⁷; (iv) deterioration of physical infrastructure such as feeder roads, water control and irrigation systems; and (v) adverse weather conditions associated with blast disease.

5.2.3 Other crops

This sub-sector has gradually increased its share of GDP from an average of 3 percent in 1980 to about 5 percent in 1990¹⁸. Output of root crops, in particular, has doubled over the decade. The evolution of the production of other crops suggests that as the general economic situation deteriorated and output of traditional crops declined, more farmers diverted their resources to produce non-traditional crops and

¹⁶ This was computed when the export price of rice was between US\$300/MT and US\$250/MT.

¹⁷ GAIBANK estimates that 65 percent of the inputs used in rice production is imported.

¹⁸ Non-traditional agriculture includes root crops, fruits and vegetables, other grains and oilseeds.

the demand for cheaper non-tradeable products increased.

Production of non-traditional crops is largely oriented toward the domestic market. In the latter half of the 1980s, however, the rapid growth of the parallel economy also facilitated increased exports of food crops. Small traders who travel to various Caribbean countries to purchase merchandise have found it profitable to take small quantities of vegetables and fruits for sale abroad¹⁹.

Production of non-traditional products is mainly carried out by small farmers who are adjacent to the large sugar and rice farms and in other rural areas. While data is not available, there is reason to believe that as a result of the disincentives to production of rice and sugar cane, some small farmers have switched to non-traditional products. GUYSSUCO also had a program of agricultural diversification which started in the mid-1970s when sugar prices collapsed. Other crops such as rice, vegetables and root crops were cultivated, as well as livestock and dairy farming. However, recent studies have indicated that GUYSSUCO's success in agricultural diversification has been poor and not economically viable. The evidence suggests that resources were diverted from more profitable sugar cane production to less profitable crop and livestock activities.

The growth of the food crop sector has always been affected by problems of internal transportation and high production costs. In recent years, the sector has also been constrained by similar factors affecting sugar and rice production. These include the deterioration of roads, water control systems, poor marketing and transport facilities and the high costs of inputs in particular.

¹⁹ Small traders also sell shellfish, especially prawns and lobsters, in various Caribbean countries.

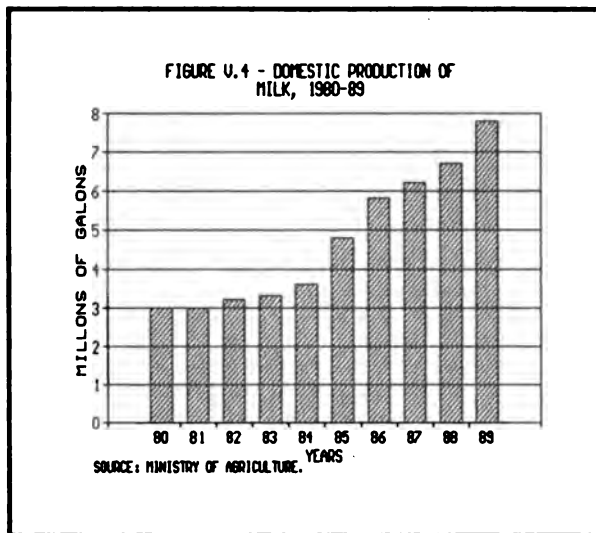
5.2.4 Livestock and dairy production

The trend in beef production between 1980 and 1990 has been cyclical (Table A.3). Output recovered in 1980 after the decline in the late 1970s, then declined again in 1984 with some recovery in 1990. Nevertheless, production of beef is much below that attained in the 1970s.

The Rupununi savannahs, in Region 9, was once the largest beef producing area in the country but the high costs of transportation to main markets on the coastal belt and the perception that foot and mouth disease still exists in the area have affected production. There are only a few well organized ranches, the most important being those managed by the Livestock Development Company (LIDCO). Some herds are kept on the coast, but constant flooding of coastal areas, competition for land between cattle raising and crop production, substitution between milk and beef production and cattle stealing are the main factors limiting beef production.

Pork production has been steady but much lower than the level of output achieved in the 1970s. The pig industry depends heavily upon imported concentrates, veterinary supplies as well as upon rice by-products. The economy's inability to provide these inputs has resulted in larger producers moving out of the industry. On the other hand, small producers mix their own feeds and produce fair quality carcasses, but the hogs take longer to mature.

As Figure V.4 shows, output of milk has steadily but significantly increased in the 1980-89 period; output in 1989 was about three times that of 1980. Higher prices to farmers, expansion of GUYSSUCO in dairy production and a significant extension of the National Dairy Development Program (NDDP) were the main contributory factors to increased production. However, milk imports rapidly declined



during the same period. Average daily consumption of milk is estimated to be 0.1 liter/person/day, an extremely low quantity.

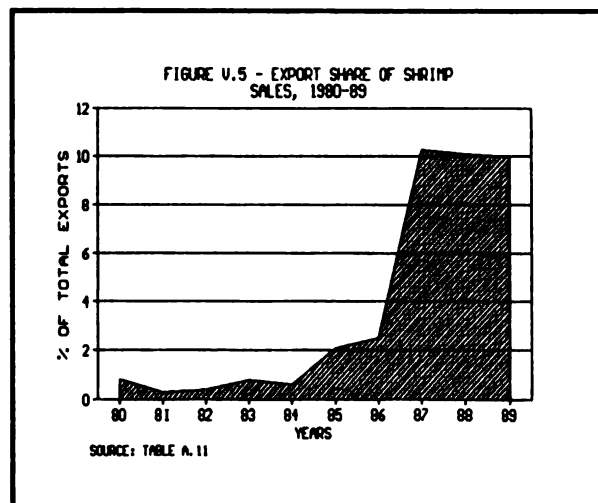
The production of eggs has declined progressively over the years and reached its lowest level so far in 1990 (Table A.3). Since 1981 the production of poultry meat has also declined considerably from over 10,000 tons in 1980 to 2,100 tons in 1990. The poultry industry has been severely constrained by unavailability of foreign exchange to purchase chicks, feed concentrates, minerals and veterinary supplies. The decline in rice production has also reduced availability of local feeds from rice by-products. Data is not available for production of mutton, since only small herds of goats and sheep are kept and the amount of meat produced is relatively insignificant.

5.2.5 Fishing

Fishing has become an increasingly important economic activity in Guyana. Its contribution to agricultural GDP has increased steadily from 4.6 percent in 1980 to about 7.7 percent in 1989. Its contribution to total domestic exports in the same period, comprising mainly shrimp has been more impressive, rising from 0.8 percent to about 10 percent (Figure V.5). Although

total output of fish has steadily increased, there has been a recent decline in industrial fin-fish caught by the bigger deep-sea fishing vessels. Output of prawns has declined but that of smaller shrimps (sea bobs and white belly) have increased in response to export demand. Inland fishing has supplied a small but steady source of fish.

Production costs, particularly for fuel and imported inputs have increased sharply in the latter half of the 1980s because of devaluations and the removal of subsidies on fuel²⁰. An export levy of 10 percent on gross value of exports was also implemented in 1990. Loans for artisanal fishing have been provided by CIDA in recent years to smaller fishermen, through their co-operative societies, for the purchase of engines and other imported equipment.



5.2.6 Forestry

Forestry is another important component in the agricultural sector, contributing with approximately 1 percent to GDP in 1980-89. The production and export of both logs and sawn lumber declined, with a marked reduction of the former, in 1989. The sector is also dependent on foreign

²⁰ Subsidies on fuel were removed in 1990 as part of a price policy reform in the economy.

inputs and timber production has been severely affected by lack of foreign exchange to replace obsolete machinery and equipment, despite two loans provided by CIDA during the 1980s for logging and sawmilling.

5.3 Food security and nutrition

The agricultural sector is Guyana's main source of food supplies. In 1972, the declared policy of the Government was that the country be self-sufficient in food production. Several steps were taken to stimulate self-reliance, improve food security and nutrition. These included the banning and restricted importation of a number of food products and fruits. Programs to increase food production included assistance to food crops through the Food Crop Production and Marketing Program, the establishment of the National Dairy Development Programme, livestock research, crop diversification by GUYSUCCO, and support to development of artisanal fisheries.

The economic decline since 1980 has negatively affected food security and nutrition in Guyana. The problems of food security and malnutrition have increased because domestic food supplies have reduced. Output of every major agricultural commodity has declined in the last decade. Furthermore, the rapid decline in real incomes by more than 20 percent, together with the shortage of foreign exchange to import food and decontrol of food prices, have also affected food consumption and contributed to a decline in nutrition and health standards.

In 1984, it was estimated that 2,552 kilocalories and 68g of protein were available per capita in Guyana. Preliminary data from the food balance sheet for the year 1990 indicates that about 1,886 kilocalories and 52g of proteins were available per capita. Although the Government estimated a few years ago that the average calorie

intake was 89 percent of the requirements, this did not reflect distortions in the system brought about by inflation and falling incomes.

The decline in living standards have significantly impacted various social and economic groups such as those earning fixed wage incomes, unemployed, individuals on social security and particularly children. Data available on the nutritional status of children less than five years old attending clinics indicate a deteriorating trend during the period 1982-86 (Table V.3).

The data from clinics, however, does not give a true picture of the condition of the total population because clinic attendance is low; it was estimated that only about 55 percent of children below 5 years attended clinics in 1986. In addition, it is estimated that although malnutrition, diarrhoeal disease and pneumonia declined significantly as major causes of infant mortality in most Caribbean countries, these have remained the major cause of death in children under five years in Guyana.

Although no reliable data exists, evidence suggests that devaluations, a reduction in import controls and the move towards a more open market in the last few years have contributed to increased food imports²¹. However, the high cost of both domestically produced and imported foods precludes their availability to large segments of the population.

5.4 Market development

The development of the traditional sector, rice and sugar, has greatly influenced the production of new agricultural products and markets in Guyana. New products were developed mainly from the

²¹ The parallel market has been the main source of imported food during the latter half of the 1980s.

TABLE V.3 - NUTRITIONAL STATUS OF CHILDREN UNDER FIVE YEARS ATTENDING CHILD HEALTH CLINICS, GUYANA, 1982-86

YEAR	WELL NOURISHED		MALNOURISHED						TOTAL	
	90% of std.		GOMEZ I (MILD)		GOMEZ II (MODERATE)		GOMEZ III (SEVERE)			
	No.	%	No.	%	No.	%	No.	%	No.	%
1982	29,194	60.0	15,295	31.4	3,844	7.9	315	0.6	48,648	100.0
1983	29,521	56.1	17,563	33.6	4,832	9.2	575	1.0	52,581	100.0
1984	26,220	55.5	15,593	33.0	4,812	10.2	600	1.3	47,225	100.0
1985	29,554	57.1	16,771	32.4	4,696	9.1	712	1.4	51,733	100.0
1986	32,903	59.5	16,653	30.1	5,031	9.1	733	1.3	55,320	100.0

SOURCE: Ministry of Health.

processing of sugar cane and rice. They include rum and other alcoholic beverages and livestock feed. As a result of the Government's declared policy of achieving food self-sufficiency in the 1970s, the range of new products has increased significantly in the last fifteen years.

The Government embarked on a program of diversification and development of new products in the 1970s and this continued in the 1980s. This program was largely aimed at reducing the economy's dependence on sugar, rice and bauxite and its main thrust was agro-processing and cultivation of new crops.

A second feature of the program was the high level of involvement of the public sector in these activities. Existing agencies that produced new products were expanded and a number of institutions were created to promote product diversification. For example, in GUYSUCO there was a division for crop diversification that included growth of legumes and sorghum, aquaculture development, milk production and its processing into butter and cheese. The Guyana Liquor Corporation (GLC) expanded its production of rum for the export market and its range of alcohol-based products such as whisky and vinegar. The Guyana Pharmaceutical Corporation (GPC)

produced a number of products such as jams and jellies, syrups, beverages, fruits, meat processing and breakfast foods.

Prior to 1985 when the GMC was restructured, this agency had extended its activities to process pineapples into chunks and juice, pork into ham, bacon and sausages, and corn into cornmeal. The Guyana Fisheries Limited (GFL) expanded its activities to include fish processing. On the other hand, private sector participation in product development gradually decreased. This was mainly due to scarcity of foreign exchange to purchase inputs and equipment, price control and competition by the public sector in many areas of production.

With the exception of a few products, particularly those based on sugar by-products and food processing, public sector participation in the above activities has gradually declined in the last five years as a result of a relaxation of price and import control measures, the need to reduce public sector deficits and subsidies, unprofitability of some activities and divestment of state enterprises. While it is too early to determine the effects of these measures, there seems to be a renewed interest in the private sector to develop new products²².

²² There is evidence that production of fruit juices and concentrates has started.

5.5 Marketing systems

Agricultural marketing in Guyana can be classified into two main systems, one for traditional and another for non-traditional products.

5.5.1 Traditional products

The market system for the traditional products, sugar and rice, is very well developed because production is mainly targeted to preferential markets in the more developed countries. Until 1990, both products were distributed and marketed by public sector institutions.

Sugar

There are three markets for sugar - domestic, external quota markets and the world market. Sugar is marketed in these by GUYSUCO (Figure V.6). Private farmers of sugar cane sell their output to GUYSUCO at a price based on the sucrose content of the sugar cane supplied.

The average domestic consumption of sugar is estimated at about 36,600 metric tons per year. The price of sugar sold on the domestic market was controlled by the government and a subsidy paid to GUYSUCO. This subsidy was removed in 1991 as part of a price policy reform included in the Economic Recovery Program negotiated with IMF and the World Bank.

The quota markets are those of the EEC and the US. Sugar is sold in the former under the EEC-ACP Lome Sugar Protocol and Guyana's allocation is 157,700 metric tons. Low sugar production in 1989 and 1990 prevented Guyana from meeting its EEC quota. The average price paid by this market in recent years has been about US\$500/MT. Quota allocations to the US market is 24,410 MT and the average price received is

US\$450/MT²³. The world market is a residual market for output in excess of the domestic and preferential market requirements, but Guyana has not sold sugar to this market since 1983.

The prices of sugar in both the domestic and export markets bear no relation to production costs and the survival of the sugar industry is largely dependent on the higher prices paid by the preferential EEC and US markets.

Rice

The marketing of rice in the domestic and external markets has also been the responsibility of the government, first through the Guyana Rice Board (GRB) then Guyana Rice Milling and Marketing Center (GRMMA). Farmers sell paddy either to private millers or to the government's milling company, GRMMA (Figure V.7)²⁴.

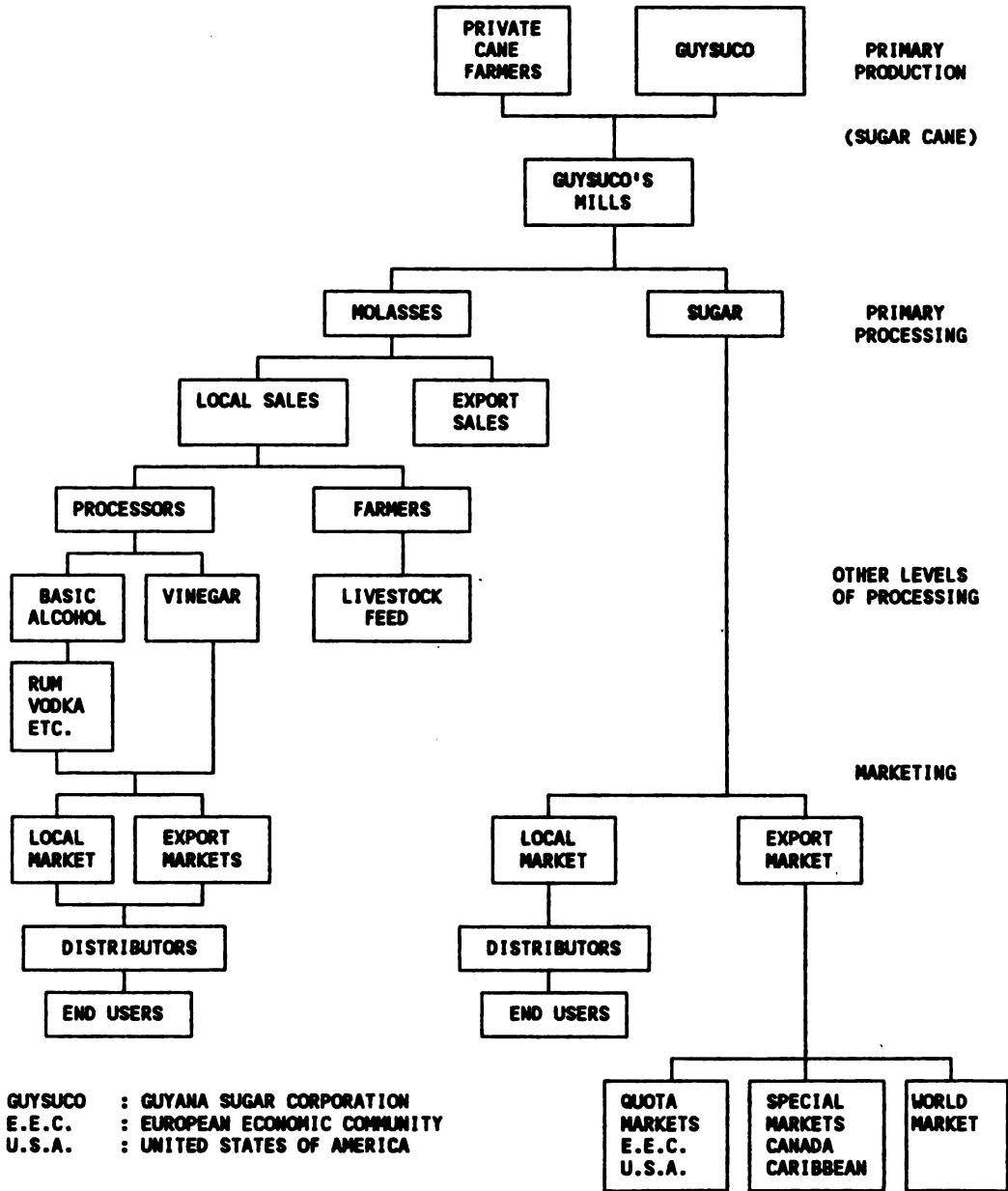
The domestic market for rice varies but it averages about 50,000 MT per year including 9,000 MT for seed, 5,000 MT for industrial uses, and 3,000 MT for feed at the farm level. With respect to export, the EEC has become an increasingly important market for Guyana's rice where it enjoys favorable treatment under the ACP agreement. In 1989, this market absorbed about 75 percent of the total rice exported.

Up to 1988, the government's rice policy dictated that all processed rice be sold to GRMMA, which then sells directly to the local market, or to the export market through the GREB. Since then, there has been a significant relaxation of market controls for rice. The granting of export

²³ This amount is the quota which Guyana recently recovered in the US market.

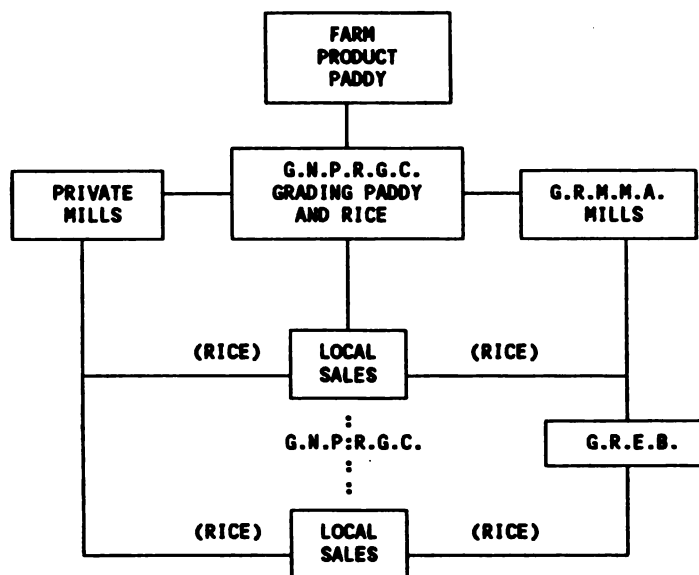
²⁴ Paddy and rice are graded in GRMMA's and private mills by the Guyana National Paddy and Rice Grading Center (GNPRGC).

FIGURE V.6
MARKET SYSTEM FOR SUGAR



SOURCE: GUYSUCO.

FIGURE V.7
MARKET SYSTEM FOR PADDY AND RICE



G.N.P.R.G.C. GUYANA NATIONAL PADDY AND RICE GRADING CENTER

G.R.M.M.A. GUYANA RICE MILLING AND MARKETING CENTER

G.R.E.B. GUYANA RICE EXPORT BOARD

RICE Refers to either cargo rice, i.e. Rice with only the outer husk removed, or to polished rice.

SOURCE: GRMMA

licenses to private millers, devaluations in 1989 and 1990, the use of the cambio system and adoption of a floating exchange rate policy have contributed to a competitive market for rice. Although, both the private and public sectors supply the domestic and export markets, the evidence suggests that the private sector participates mainly in the export market where the relative profitability is higher.

5.5.2 Non-traditional products

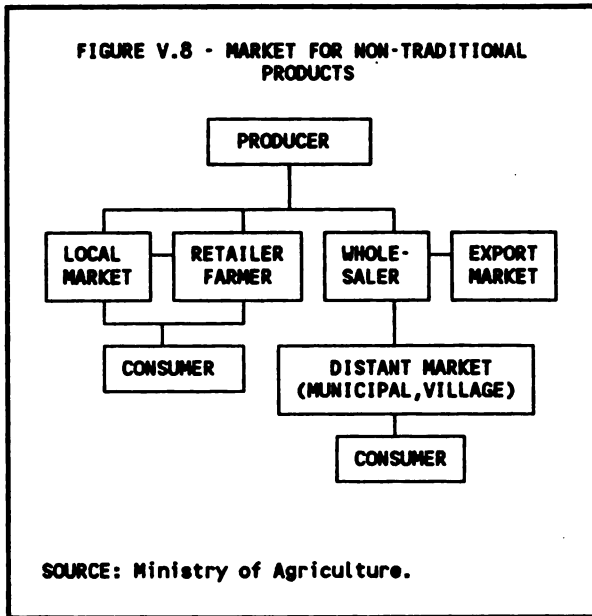
In Guyana, the marketing of non-traditional agricultural products is largely in private hands. A large part of the foodcrops moves almost directly from farm to consumers in local communities; the

remainder goes through a more formalized system that carries products from distant farms to urban centers such as Georgetown, New Amsterdam, Linden and Corriverton. The system is fairly efficient and it covers all the functions required to move products from farms to the consumer. These include operations at assembly points in farming areas; a transport system for moving products by land, water or air; wholesaling and distribution; and in some cases, processing, storage and, ultimately, retailing.

There are two subsets of the marketing system for non-traditional products, the local system and distant markets²⁵ (Figure V.8).

²⁵ The distant markets include export markets.

FIGURE V.8 - MARKET FOR NON-TRADITIONAL PRODUCTS



The local marketing system is basically an underdeveloped one in which private farmers sell their products directly to neighbors and to consumers in their communities. Some sales are made to roadside stands and sometimes to other farmers. In any case, the formal marketing channel is bypassed and there are no middlemen between the farmer and the consumer. Most sales are for cash and the margins tend to be minimal.

The distant market system is more formal and complex. It carries products from the farm to consuming centers and to export markets. Generally, the products are moved by truck or boat to a concentration point where private wholesalers as well as retailers compete. In areas where products are transported by boat, the quality of the service varies. Most boats are small and are not equipped to handle perishable products. In the larger vessels, the holds are hot and poorly ventilated. While estimates are not available, there is evidence that considerable spoilage occurs in shipping and handling.

In areas served by roads, an increasing volume of goods is transported to market by truck. While the damage to products is still considerable, it appears to be less than by ship.

The concentration points include wholesale and retail activities. The major points for all types of farm products are located along the coastal belt with a few placed along rivers in the interior areas. These include the stellingen (wharves) at Mabaruma in Region 1, Parika in Region 3, Timehri in Region 4, Mahaicony in Region 5, the municipal markets in Anna Regina, Georgetown, New Amsterdam, Rosehall, Corriverton, and Linden. Added to these are village markets such as those at Leonora, Wales, Better Hope and Port Mourant. The municipal markets operate on a daily basis while the others operate especially at weekends, that is Friday and Saturday.

In the municipal or central markets, the retailer or stallholder rents a stall, the cost of which depends on the size and location. Some of the retail stalls are covered but many are out in the open. Each stallholder is responsible for procurement, display and sale of the product. With the exception of meat and fish, stallholders usually sell a wide variety of agricultural commodities including a mixture of fruits and vegetables.

A few wholesale and retail transactions are based on controlled weights and measures. For example, most fruits and vegetables are sold by the "parcel". Parcels commonly sell for the same price for an extended period of time, but the parcel may change depending on the supply situation and product quality. For the most part, retailers allow quality difference by arranging their products into appropriately sized parcels to match quality with price. There is, therefore, very little formal grading in

this market system. However, wholesalers and retailers often do sorting according to their own standards.

Supermarkets do not play an important role in the market system for agricultural products. There are few supermarkets and these are mainly located in the three main towns, Georgetown, New Amsterdam and Linden and the quantity of agricultural products sold by them is very small.

Prior to 1985, the Guyana Marketing Corporation, a public sector agency, also participated in the marketing system by purchasing farm products from various collection points and depots at a guaranteed price. These products were sometimes graded and sorted before being retailed in the city and in few urban areas²⁶.

A very large proportion of the foodcrops that pass through the marketing system are consumed almost immediately in fresh form when they are in season. There are very little storage and processing facilities and this constrains the seasonal availability of foodcrops and limits the time that products can be held during the peak season. This problem is more pronounced with respect to vegetables and fruits, but not for root crops and plantains as these are available for most of the year.

The markets mentioned above sell all kinds of farm products except milk, the sale of which is governed by special public health laws including the requirement that distributors of milk must have food handlers' health certificates.

Most meat and fish is retailed through municipal markets, butcher shops and supermarkets. The Fisheries Department of

²⁶ The structure and role of the GMC changed in 1985; it is no longer a wholesaler or retailer of products. It currently functions as an agency that provides domestic and export market information and promotes exports of non-traditional products (see section VII).

the MoA monitors the exports of prawns in excess of 10 pounds, when a license is required. Exporters are free to procure their own markets and to sell to those.

Much of the meat sold, particularly beef in Georgetown and adjacent urban areas, was once produced in the Rupununi area. However, a very small amount of beef is now supplied because production has considerably decreased in this area, the cost of transportation has been very prohibitive and air services very irregular. Fish is usually sold wholesale, either at the landing points of the boats or by specialized agencies that process fish. Poultry meat and eggs are sold by the producers or by retailers in the supermarkets, municipal and village markets.

Constraints in the marketing system of non-traditional products

The major problems facing crop farmers are poor post harvest handling, inadequate transportation and storage facilities. The public boat service which transported foodcrops and other products from the riverain areas such as the Pomeroon, Northwest District, Upper Demerara and Berbice rivers, is no longer operational and the cost of private transport is very high. These factors have contributed to a decline in foodcrop production in the riverain areas and an increased dependence on supplies from areas on the coastal belt.

There are periodic gluts, especially of fruits and vegetables, but the volumes of these excesses are not enough to sustain processing over long periods. There are also constraints on exporting which result from the lack of adequate market information and an irregular and insufficient supply of available crops, other than sugar and rice.

Trucks that transport livestock to market are unsuitable and carcasses are

invariably badly bruised due to rough handling and overcrowding during transportation. Within recent years the supply of electricity has been very erratic resulting in the spoilage of stored meats and fish. In addition, the quality and shelf life of stored fish are reduced because it is not gutted promptly after being caught. However, this is not the case with fish sold by the GFL which has modern processing facilities.

5.6 Product and input prices

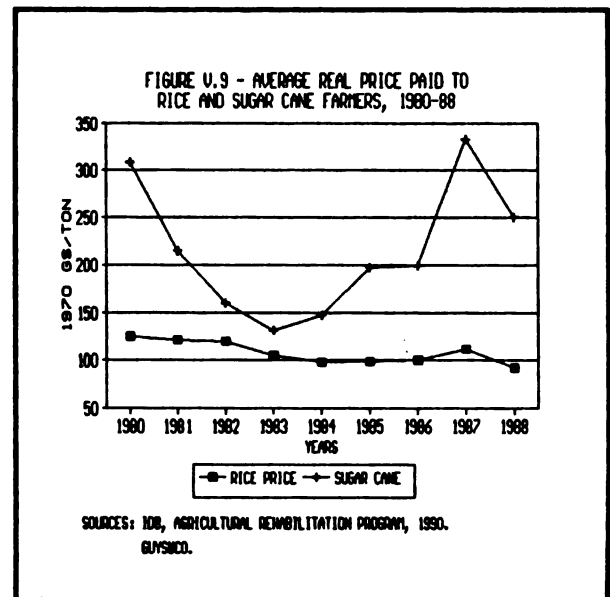
The behavior of both input and output prices in the last decade is characterized by price control on various inputs and outputs and a rapid increase in nominal prices caused by inflation and devaluations.

There has been more governmental control of output prices than input prices in Guyana. The government complemented its import and commercial policies in the 1970s and most of the 1980s with strict control on most food prices and those of major inputs. With the exception of domestically produced fruits, vegetables, root crops and certain meats, controlled prices were implemented on a wide range of basic food products, including sugar, rice, edible oil, salt, flour, peas, eggs, milk, etc (Table A.5). Price control was facilitated by institutional mechanisms that were set up to import and distribute products and monitor their retail prices. Punitive regulations were applied to wholesalers and retailers selling above stipulated prices.

There were also regulations governing the import and sale of inputs. The pricing system for machinery and spares sold by the public entities has been characterized by a set of "mark-ups" on the CIF price to reflect the various internal costs and profits. Although private enterprises also supplied such inputs, their participation was seriously constrained by the shortage of foreign exchange and the pre-determined wholesale and retail price margins by government.

The restrictions controlling the importation and sale of a wide range of food items boosted the prices of locally produced farm products such as root crops and vegetables (Table A.6). Although reliable data is not available, there are indications that the prices of root crops increased considerably after the import of flour was banned in the early 1980s, and subsequently decreased when it was re-imported in 1985.

The real prices of rice and sugar presented different behavior during 1980-88 (Figure V.9). The former registered a downward trend throughout that entire period falling from G\$ 125 to G\$ 92 per ton. The latter, in turn, dropped from 1980 until 1983 and then established an upward trend. The decline in the real price of these products, particularly of rice, affected significantly their profitability since the costs of production did not follow the same pattern.



Price controls have been gradually relaxed since 1985 on most outputs and inputs. This relaxation was accelerated in 1990 and 1991 as a result of policy reform measures implemented under the IMF-World Bank stabilization and structural adjustment program. Until 1990, price

control was limited to mainly sugar and rice. The rice price was decontrolled in 1991 and only limited control was retained for sugar.

5.7 Agricultural credit

Agricultural credit is channeled through several groups of lenders, formal and informal. Among the formal are public institutions, comprising banks and cooperatives; the informal sources include private shopkeepers, money lenders and family members.

The main public sector agencies supplying credit to the agricultural sector have been the commercial banks, the Guyana Co-operative Agricultural and Industrial Development Bank (GAIBANK), GUYSUCO and GRMMA. Of these, GAIBANK is the most important, especially to the small farmer. In 1983, the Institute of Small Enterprise Development (ISED) was established and it has been lending relatively small sums to farmers. At present, co-operative thrift and credit societies also provide credit to their members. The Guyana Cooperative Credit Society (GCCS) has been lending small amounts to the agricultural sector.

Although loans have been made by GAIBANK to virtually all parts of the crop, livestock, fisheries and forestry sectors, certain activities have received relatively larger amounts. As Table V.4 shows, the major credit recipients have been rice, mixed crop farms, poultry, fishing and timber production.

The agricultural sector always enjoyed subsidized rates of interest through GAIBANK which provided loans below the prime rate. External agencies lending to GAIBANK insisted that the Bank's lending rates should be realistic and positive. Accordingly, in 1989 the lending rate was increased

from 12 to 20 percent and then to 30 percent in 1990 in line with the prime rate.

GAIBANK's procedure for agricultural loans requires that a farm plan or a project document be prepared which is then appraised. The fee charged for this amounts to 1.5 percent of the total loan size. Borrowers pay one half of the estimated appraisal fee as soon as preliminary investigations show that a project looks viable. If further investigation confirms economic viability then the project is approved and the remaining half of the appraisal fee is paid.

All loans must be secured. Collateral security usually takes the form of fixed assets, including real estate, and recovery periods vary from six months for short-term crop credit to ten years for long-term credit. Loans are rescheduled if, in the opinion of the Bank, circumstances beyond the control of the borrower affect repayment, such as bad weather and the incidence of pests and diseases.

The commercial banks do not analyze projects as carefully as do GAIBANK and ISED²⁷. They rely mainly on collateral security and previous experience with their borrowers. Therefore, they dispense credit with less initial paper work and thus, more promptly than does GAIBANK. Many big borrowers prefer to deal with the commercial banks.

5.8 Agroindustrial development

Development of the agroindustrial sector has not progressed significantly over the past ten years, although several attempts were made to use indigenous raw materials for processing. Enterprises were established in both the public and private sectors but particularly in the former, to produce a variety of agro-based manufactured

²⁷ GAIBANK's emphasis is on supervised credit.

TABLE V.4 - CREDIT DISBURSEMENTS BY GAIBANK, 1980-90

	1980	1982	1984	1986	1988	1990
AGRICULTURE						
IN/OFFSHORE	833.5	1,153.8	854.5	1,006.5	8,147.3	11,860.4
DEEPESEA FISHING	153.6	576.9	1,424.0	391.5	893.0	6,155.1
RICE	4,809.9	4,218.7	7,613.3	7,191.0	24,743.7	65,333.5
SUGAR CANE	660.5	848.6	62.8	49.8	137.0	409.9
TOBACCO	0.0	720.3	640.6	15.6	0.0	0.0
FOOD CROPS (TREES INC.)	1,058.4	5,132.9	2,543.8	1,756.6	5,728.3	63,060.5
BEEF	48.4	190.2	12.4	55.6	793.1	0.0
DAIRY	291.7	664.5	372.5	487.1	2,150.2	1,661.6
PIGS	1,640.7	3,776.4	254.6	341.5	422.6	1,673.2
POULTRY	1,395.0	1,206.1	398.6	368.9	3,495.0	5,883.5
OTHER LIVESTOCK	411.9	433.3	119.0	202.0	827.6	332.5
FOOD CROP REV.FUND.	0.0	0.0	0.0	783.8	3,266.3	0.0
OTHER ACTIVITY	0.0	0.0	0.0	124.2	0.0	0.0
SUB TOTAL AGRICULTURE	11,303.6	18,921.7	14,296.1	12,774.1	50,604.1	156,370.2
INDUSTRY	7,059.0	5,862.9	26,182.7	7,506.8	30,342.1	83,899.6
GRAN TOTAL	18,362.6	24,784.6	40,478.8	20,280.9	80,946.2	240,269.8

SOURCE: GAIBANK

commodities including: cassava starch and flour; rice flour and other rice-based products; breakfast cereals and weaning foods; the production of preserved fruits including jams, jellies and concentrates; milk and meat processing and textile milling. Notwithstanding the efforts over the years, the sector remains largely underdeveloped.

Most of the private sector enterprises are small operators either working at home or in small factories. The largest enterprises in the above list are operated by companies manufacturing rum and allied products, livestock feeds, furniture or food processing.

The government provided various incentives to develop the agroindustrial sector. These included granting tax holidays to pioneering industries and the financing of a number of local agro-industrial projects by GAIBANK from resources provided by bilateral and multilateral agencies. In the 1980s two loans from the European Investment Bank and one from the IDB were provided for the rehabilitation of sugar and

rice mills. Loans were also provided for food processing, beverage production and manufacture of furniture. A relatively large amount of the finance given by GAIBANK to industrial operations has been channeled to food and beverage activities.

Another incentive given to industrial development during the period was the establishment in 1984 of the Guyana Manufacturing and Industrial Development Agency (GUYMIDA). This agency assists and advises entrepreneurs on formulating and implementing projects. However, evidence suggests that GUYMIDA's efforts in promoting agroindustry have declined in recent years.

One of the main problems hindering agroindustrial development over the last decade has been the inadequacy of foreign exchange as well as the high cost of imported raw materials. A large snack food project was developed in 1989, but it was found that the high cost of suitable packaging materials made its products uncompetitive in external markets. The irregular and

unreliable supply of both raw materials and electricity, and the migration of skilled labor have also militated against agro-industrial development. Inadequate transportation has also limited the sector's development because of the inability to maintain quality of raw materials such as fruits and vegetables which are transported over long distances. These constraints have been compounded by the deterioration of basic infrastructure and the lack of technical expertise and good management techniques.

5.9 Environmental protection

Because of the physiographical and natural resource situation in Guyana, a coordinated program to manage agricultural resources and the environment is required if sustained production is to be achieved. The flat coastal plain, on which most agricultural activity takes place, lies in most places seven feet below the level of high tides, which is estimated to have risen six inches over the past fifty years. The bimodal pattern of rainfall and its intensity in all parts of the country (except the Rupununi Savannahs) makes it necessary to construct and maintain expensive water control systems. The traditional rainfall pattern has also inhibited the provision of adequate irrigation systems to satisfy farmers' needs for water during the two dry periods of the year.

To a large extent, Guyana has been constrained in its efforts to manage the environment by the absence in the country of any specific institution with such capabilities. However, in recent years, the government has increased efforts to protect and make rational use of the fauna and flora and to take all appropriate measures to conserve and improve the environment. These include the creation of the Guyana Natural Resources Agency (GNRA) in the mid-1980s and the establishment of the Guyana Agency for Health Science Education, Environment and Food Policy

(GAHEF) in 1988. While the GNRA has focused mainly on natural resource development, GAHEF has the task of defining the institutional and legislative framework for environmental management. However, GAHEF's activities so far have been concentrated mainly in areas of health rather than addressing environmental issues. Figure V.10 shows the institutional linkages for policy and administration and for technical co-operation under GAHEF.

There are currently twenty-seven existing pieces of legislation, covering such topics as: wild life and genetic resources; dangerous substances; health; land use planning; marine resources, fisheries and shore protection; non-renewable resources; water; and human settlements. GAHEF, assisted by its Advisory Environmental Council (AEC) which comprises representatives from those Ministries and agencies with responsibility for the environment, will attempt to screen all legislation in order to determine overlaps, inconsistencies and deficiencies.

A comprehensive action plan has recently been prepared by GAHEF to protect various national resources: minerals; hydro-power and other resources related to the production of energy; climate and hydrology; agricultural resources including marine and other water resources; forests; wildlife and biological diversity; archeological sites; and human settlements. In addition, the Government of Guyana has recently allocated for study 900,000 acres of prime forest. This would assist Guyana and other countries in the implementation of appropriate policies to manage their natural resources and environment.

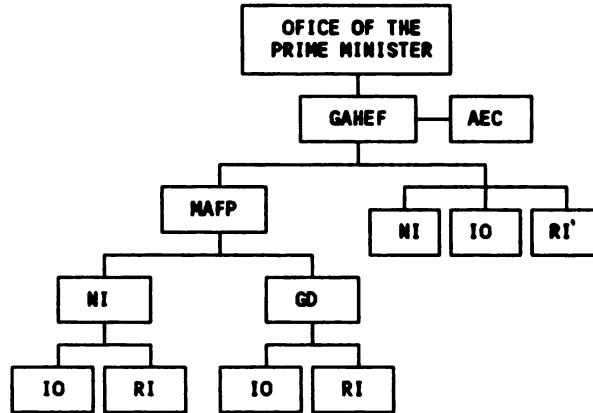
VI. SMALL-FARM AGRICULTURE AND RURAL POVERTY

6.1 Small-farm agriculture

The agricultural sector of Guyana has

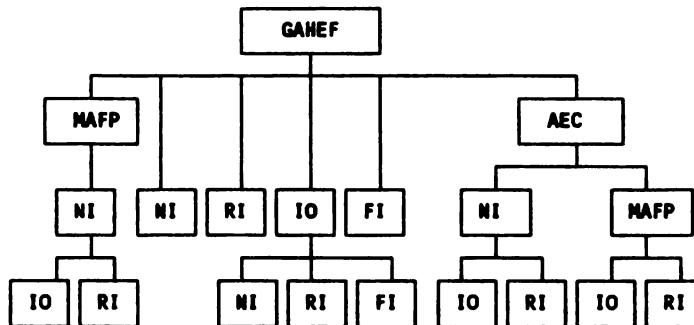
FIGURE V.10 - GAHEF INSTITUTIONAL LINKAGES

A: FOR POLICY AND ADMINISTRATION



GAHEF Guyana Agency for Health Sciences Education, Environment and Food Policy.
 AEC Advisory Environmental Council.
 MAFP Ministry/Agency Focal Point (for the environment).
 NI National Institution
 GD Government Department.
 IO International Institution.
 RI Regional Institution.

B: FOR TECHNICAL COOPERATION



GAHEF Guyana Agency for Health Sciences Education, Environment and Food Policy.
 MAFP Ministry/Agency Focal Point.
 AEC Advisory Environmental Council.
 NI National Institution.
 RI Regional Institution.
 IO International Institution.
 FI Foreign Institution/organization.

SOURCE: GAHEF

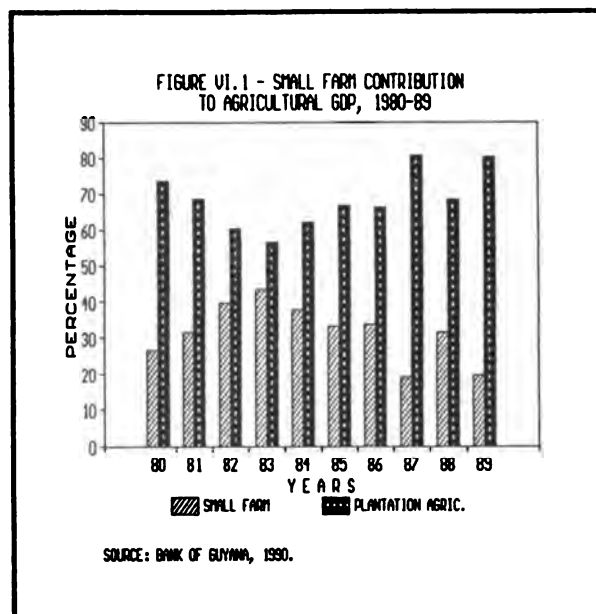
a dual structure: there are a small number of large farms and a large number of small farms. Small-farm agriculture is generally characterized by the following: the sector accounts for a relatively small share of agricultural GDP; the average farm size is less than 10 acres; farming activities consists mainly of the production of non-traditional crops and livestock; output is mainly targeted for home consumption and the local market, and farming methods are largely labor-intensive, with family members providing most of the manpower.

Because of its low level of development, the small-farm sector has contributed significantly less to the agricultural GDP than "large-farm", or plantation agriculture. As Figure VI.1 shows, during the 1980s, the plantation sector, which focuses mainly on sugar cane and rice production²⁸, accounted for 56-81 percent of agricultural GDP, while small-farm contributed with 19-44 percent. To a great extent, this disparity reflects the minor role of small-farm sector, both in agriculture and in the overall economy.

As a result of the dual structure of agriculture and the neglect of the small-farm sector in favor of the plantation sector, small farmers have had to work within a context of deficient marketing systems, poor production techniques, low levels of income, inadequate credit facilities and a lack of efficient support services, such as agricultural research and extension. In addition, small-farms have been affected by poor infrastructure, such as roads, drainage and irrigation.

Agriculture is the main economic sector of Guyana as well as the largest source of employment. According to the

²⁸ Although small-farm agriculture is often associated with non-traditional crops, particularly cash and root crops, a few small farmers also grow rice and sugar cane. Large stock-raising operations, such as the cattle ranches in the Rupununi, are not considered small farms.



Guyana Rural Farm Household Survey (GRFHS), in 1978, there were 24,635 farm households involved in agricultural activities, 60.4 percent²⁹ of which belonged to the small-farm category.

6.1.1 Farm size

Historically, the development of the small-farm sector has been largely influenced by: (i) the colonial state policy which restricted the size and number of plots owned by former slaves and indentured workers; (ii) the granting of very short-term leases; and (iii) the absence of any significant land reform. In the post-independence period, the agricultural policies pursued did not effectively reduce the dual structure of agriculture; as a result, the plantation/small farm dichotomy has persisted in the sector. Thus, if small farmers are defined as those holding 10 acres or less, it appears that approximately 60 percent of all farms belonged to this category in 1978 (Table VI.1). Although not much information is available in this regard, the evidence

²⁹ This figure was obtained by adding the number of households living on farms of less than 10 acres.

TABLE VI.1 - NUMBER OF FARMS AND ACREAGE ACCORDING TO SIZE, BY REGION - 1978
(Percentage)

FARM SIZE (ACRES)	GUYANA	R E G I O N S						TOTAL
		NORTHWEST AND POMEROON	ESSEQUIBO COAST AND ISLANDS	WEST DEMERARA	EAST DEMERARA	WEST BERBICE	EAST BERBICE	
Less than 2.5	25.3	2.2	9.4	10.3	38.3	10.1	29.3	100
2.5 - 4.9	15.1	4.2	23.2	9.0	22.6	6.1	34.3	100
5.0 - 9.9	19.8	4.6	31.3	15.6	16.0	8.1	24.1	100
10.0 - 14.9	13.9	14.1	28.7	9.5	15.1	10.9	21.4	100
15.0 - 24.9	14.5	7.2	13.0	23.9	13.2	4.9	37.5	100
More than 24.9	11.4	14.8	19.2	5.4	21.1	13.0	26.3	100
TOTAL	100.0

SOURCE: GRFHS. 1982.

suggests that there was no significant change in the farm size structure during the 1980s.

As shown in Table VI.1, a large majority of the farms with 10 acres or less are located in East Berbice, East Demerara and Essequibo Coast and Islands³⁰. Table VI.1 also shows that the largest farms are concentrated in the same areas. The greatest number of both small and large farms are located in these areas for the following reasons: (i) most of the population lives in these areas; (ii) since colonial times, they have been the major cane-farming areas; and (iii) historically, they have been populated mainly by East Indians who are responsible for the development of the rice industry in the country.

An additional feature of the farm size structure in Guyana is the fact that the large farms, especially in sugar cane cultivation, are owned by the state, in contrast to small farms, which are privately owned.

³⁰ These areas are now in Regions 2, 3, 4 and 6. The regional system did not exist when the Rural Farm Household Survey was conducted.

6.1.2 Land tenure

The land tenure system in Guyana consists basically of five tenure modes: (i) owner operated³¹; (ii) rental or lease of less than 21 years; (iii) rental or lease of 21 years or more; (iv) rented or leased by one person and used by others; and (v) other types of tenancy.

The main tenure arrangements, in terms of the frequency with which they occur, are the owner-operated plots and the lands rented or leased for more than 21 years. According to the Guyana Rural Farm Household Survey, in 1978, 51.8 percent of the total number of land holdings were owner-operated, while 27.2 percent were rented or leased for 21 years or more.

Of the six geographical regions covered by the Survey, East Berbice had the largest percentage of land holdings that were owner-operated (Table VI.2). On the other hand, lands rented or leased for 21

³¹ These lands are owned by individuals who hold title deeds to their properties.

TABLE VI.2 - NUMBER OF FARMS AND ACREAGE ACCORDING TO TENURE, BY REGION, 1978
(Percentage)

REGIONS	TOTAL		OWNER OPERATED		RENTAL OR LEASE OF 21 YEARS OF MORE		RENTAL OR LEASE OF LESS THAN 21 YEARS		OTHER TYPES OF TENANCY		USED BY OTHERS (RENTED, LEASED OR OTHER AGREEM)	
	FARMS	ACRES	FARMS	ACRES	FARMS	ACRES	FARMS	ACRES	FARMS	ACRES	FARMS	ACRES
NORTHWEST AND POMEROON	6.8	7.6	6.7	8.4	4.4	5.7	3.4	6.7	4.3	7.7
ESSEQUIBO COAST AND ISLANDS	20.2	13.1	20	13.7	30.9	16.3	6.2	6.7	9.6	4.8	17.6	28.2
WEST DEMERARA	12.5	7.4	14.6	6.5	12.2	7.6	7	7.7	7.9	14.5	22.3	5.6
EAST DEMERARA	22.8	22.7	22.4	27.2	17	21	25	19.3	16.6	11.9	22	45.9
WEST BERBICE	8.8	19.7	9.8	8.4	8	32	13	22.5	21.8	29.4	5.5	1.1
EAST BERBICE	28.9	29.5	26.5	35.8	27.5	17.4	45.4	37.1	39.8	31.7	32.6	19.2
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

SOURCE: Guyana Rural Farm Household Survey, 1982.

years or more were more common in Essequibo Coast and Islands. In contrast to other countries, sharecropping has not been used very much as a tenure mode in Guyana, except in Hogg Island, where it has been a common practice.

6.1.3 Marketing and credit

The development of small-farm agriculture has been constrained by an inadequate marketing system, especially in the case of non-traditional crops. Small farmers have had to market their products themselves, or otherwise to wholesale them to peddlers, agricultural marketing centers, or the Guyana Marketing Corporation, which used to buy only specific export crops (pineapples, avocado pears, etc.).

The marketing of small-farm agricultural products has also been hindered by factors such as poor transportation from farms to marketing centers, inadequate storage facilities and a lack of market information.

Small farmers who are involved in the production of sugar cane and rice, however, have not experienced such difficulties in selling their products. The Guyana Sugar Corporation buys all the sugar cane produced by small farmers, while rice is purchased by GRMMA or by private millers.

There is a credit facility available to small farmers; however, gaining access to it has been difficult, especially for farmers who do not produce sugar cane or rice. Moreover, as Table VI.3 shows, the supply of agricultural credit from public and private institutions fell significantly in the 1980s, dropping in real terms from G\$ 227.7 million in 1980 to G\$ 133.3 million in 1988. With respect to loans granted by GAIBANK in 1980, 99.5 percent of the total amount of loans went to agriculture; by 1985, this figure had declined to 46.6 percent, and by September 1990, only 11.9 percent was lent to the entire sector.

It should be noted, however, that the

TABLE VI.3
AGRICULTURAL CREDIT, 1980-88
G\$ MILLION OF 1988

YEAR	COMERCIAL BANKS	GAIBANK	TOTAL
1980	28.5	199.2	227.7
1981	19.8	---	19.8
1982	14.5	205.5	220.0
1983	18.2	208.2	226.4
1984	21.7	124.5	146.2
1985	50.3	109.2	159.5
1986	24.5	94.0	118.5
1987	19.2	112.1	131.2
1988	29.2	104.0	133.3

SOURCE: Bank of Guyana Report. 1990.

positive impact which credit might have had on small-farm agriculture was greatly reduced by the devaluations of the 1980s, high inflation rates, the deterioration of infrastructure and price distortions. Nevertheless, those small farmers who did gain access to agricultural credit from institutional sources benefited from the government's policy of maintaining negative interest rates throughout the period.

In general, credit for small farmers has become somewhat scarce, especially since the mid-1980s, when a number of commercial banks changed their lending policy, and decided to require a specific deposit of money as collateral. This policy, however, was not adopted by GAIBANK.

6.1.4 Technology and productivity

Small-farm agriculture in Guyana is characterized by a low level of use of modern technology. In general, most farmers have used traditional labor-intensive techniques to grow their crops. Sugar cane and rice farmers are an exception to this rule, however, as they have had access to modern inputs and extension services.

Other factors have also contributed to the low level of technology in the small-farm sector. Most agricultural inputs are imported by the Guyana National Trading Corporation and GUYSUCO, and then made available to farmers, either directly through these institutions or through projects such as those carried out at the Mahaica-Mahacony-Abary (MMA), Black Bush Polder and Tapakuma. Bureaucratic procedures, patronage, corruption and an inadequate distribution system make the cost of gaining access to these inputs very high for small farmers. This has been a source of much hardship and frustration for them. In addition, this group of farmers is not always included in the aforementioned distribution arrangements; thus, they often have to resort to purchasing inputs at exorbitant prices on the parallel market.

The inadequacy of extension services has also contributed to the low production technology of small farmers. This is a result of the highly fragmented state of the extension service, the duplication of activities by various state agencies, the shortage of qualified extension officers, the large number of vacancies in extension units throughout the country and the lack of adequate transportation for extension officers.

In addition to the above, agricultural research has not contributed significantly to the improvement of small-farm productivity. Agricultural research is concentrated mainly on rice and sugar production, while research on non-traditional crops has been inadequate. Small farm agriculture also suffers from the weakness of the linkage between research and extension services. For all these reasons, agricultural productivity in Guyana has been quite low (Table VI.4).

In an effort to improve the technological capabilities of small farmers, the government attempted to mechanize small-

TABLE VI.4 - COMPARATIVE YIELDS, 1980-85

RICE		SUGAR	
	MT/HA		MT/HA
AUSTRALIA	6.3	PERU	133.4
SPAIN	6.1	ZAMBIA	112.6
EGYPT	5.8	ETHIOPIA	124.7
JAPAN	5.9	ZWAZILANDIA	109.5
ANDIAN REGION	3.7	ANDIAN REGION	77.0
CARIBBEAN REGION	3.3	CARIBBEAN REGION	51.7
GUYANA	3.2	GUYANA	73.5

SOURCE: IICA.

scale farming through the creation of a state-owned machine pool. This initiative, however, was not successful because of management problems and improper care and maintenance of the equipment.

6.2 Rural poverty

Using an index that measures the cost of food (G\$ 17,510 or US\$ 1,751)³² for a household size of 5.4 persons to estimate the poverty line for 1988, six groups of rural poor have been identified in Guyana: (i) households headed by women; (ii) wage laborers; (iii) landless farmers; (iv) small landholders; (v) Aboriginal Indians; and (vi) pensioners.

6.2.1 Households headed by women

Farm households that are headed by women have traditionally been an important social group in the Guyanese economy. According to the GRFHS, in 1978, this group accounted for 12.3 percent of the total number of farm households in the country. In order to provide for their families, women and their children have been engaged in growing non-traditional crops, working as wage laborers and producing crafts (hats, bags, floor mats, etc.) and foods (corn meal, cassava bread, preserved fruits and pastries) to be sold on the local

³² Boyd, D., The social and economic impact of Guyana's economic performance and Economic Recovery Programme, 1989.

market. Through these activities, the households in this group have generated an estimated annual income of US\$ 392 per family in 1990.

The economic crisis of the 1980s led many rural families to resort more frequently to child labor in order to meet manpower requirements, as well as to increase household income. This phenomenon seems to have been more prevalent in households headed by women, since they had no other sources of labor on which to rely. Although no reliable data exist, the evidence suggests that a relatively larger number of children from these households have been providing labor instead of attending school.

According to a 1990 survey³³, the most pressing needs of women are related to infrastructure development, social welfare, education and training, the lack of which has prevented them from playing a greater role in the development process. A number of institutions that deal with women's issues have been working in Guyana to address some of these problems (Table A.7). Although no information is available on the impact of these efforts, the evidence suggests that their contributions are still small compared with the country's needs.

6.2.2 Wage laborers

This group of rural poor is composed of workers who are employed by the government or by private firms in various activities. The group includes persons on a fixed wage who are paid on a daily or weekly basis and whose skill level is low. A number of factors have contributed to wage laborers' being classified as rural poor. These include wage differentials and the impact of high inflation on their real income and living standard.

³³ University of Guyana, Women's Studies Unit, Survey of needs of women in selected communities in Coastal Guyana, 1990.

Since the government is the largest employer of manpower in the country, a large percentage of wage laborers work in the public sector, which pays lower wages than the private sector. In 1988, the private sector paid such workers an average salary of US\$ 130 per month, while the government paid only half that amount. Nevertheless, both wage rates were quite low compared to the minimum level required for subsistence living.

Wage differentials have been observed not only between public and private sector laborers, but also among government workers who perform similar tasks in different subsectors of agriculture. For instance, a number of wage laborers working in the sugar cane industry have received higher wages than their counterparts in the rice sector. The existence of these and other wage differentials, however, has not been reflected in equivalent differences in the poverty status of these groups of workers.

As a result of the worsening of the country's economic situation, wage laborers, especially those working for the public sector, have faced a significant fall in their real income³⁴. This is because, with the increasing fiscal imbalances, the government was not able to raise wages proportionally to the rise in the inflation rate.

Among the various items which make up a wage laborer's budget, transportation expenditure has been identified as one of the most significant; in some cases, it represents up to 70 percent of the worker's disposable income. Increased transportation costs has imposed additional hardships on wage earners who travel to work, and hence compounded the problems created by the drop in real incomes.

³⁴ According to FITUG, during the 1970-89 period, real wages fell by 65 percent, and from June 1989 to September 1990, they dropped by 100 percent.

6.2.3 Landless farmers

Landless farmers are found in all the regions of Guyana. They live illegally on small plots of public and private lands, where they build rudimentary houses and grow a few crops to provide for their needs. Although no precise information is available, it is estimated that households belonging to this category of rural poor earned an annual income of about US\$ 128 in 1990. To generate this income, most of the landless farmers grew ground provisions (eddoes, yams, sweet potatoes), vegetables (eggplant, pumpkin) and greens (shallot, amaranth, celery), and sold their labor as occasional workers to the public or private sector.

A distinguishing feature of the cropping pattern of this group is that, because of their insecure land-occupancy situation, they cultivate short-term crops; this practice, besides generating income more rapidly, reduces the risk of eviction before harvest time. In addition, their farming practices are characterized by a low level of technology, which in turn contributes to low income levels.

6.2.4 Small landowners

With an estimated annual average income of approximately US\$ 161 in 1990, small landowners are to be found throughout rural Guyana growing various crops and raising a small number of livestock. In addition to performing these activities, small landowners usually hold part-time jobs in order to supplement their income.

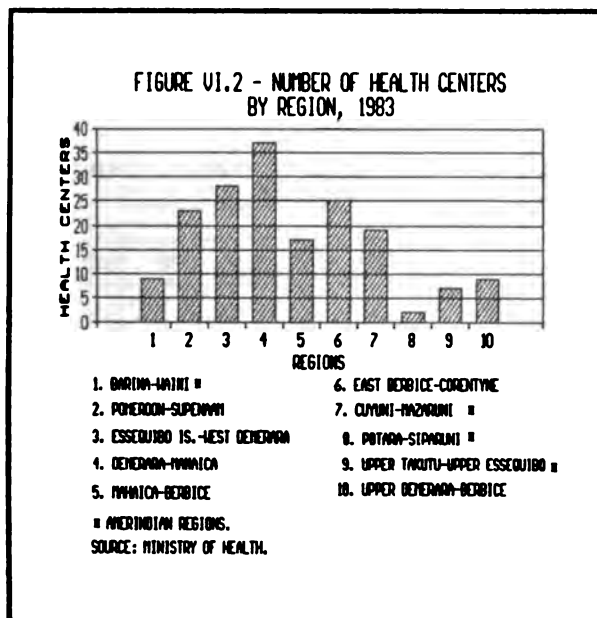
Among the farmers who comprise this group of rural poor, rice and sugar cane growers have enjoyed some privileges in terms of access to more advanced technologies, better market structures and farm

inputs³⁵. Nevertheless, their incomes are not significantly different from those of other members of the group.

Having land to pledge as collateral for bank loans, small landowners have had easier access to credit than other groups of rural poor. As a result, small landowners have been able to improve their agricultural production, and hence enjoy a higher status among the various groups of rural poor.

6.2.5 Aboriginal Indians

Totaling 40,619 in 1986, the Aboriginal population comprises what seems to be the most disadvantaged group of the rural poor in Guyana. Almost all the members of this group live in small communities located in remote areas in the interior of the country, where educational and health services are quite deficient. As Figure VI.2 shows, in 1983, there were 2-9 health centers in most Amerindian regions, whereas in other regions, there were between 17 and 37.



³⁵ This is due to the fact that rice and sugar cane, being the mainstay of the economy, have received special attention from the government, which promotes the development of these subsectors.

Within the Amerindian villages, the individual family units cultivate food and cash crops on a shifting basis, using rudimentary technology. Their surplus products are bought at very low prices by intermediaries from the coastlands, who pay in cash or in kind. Besides earning income from farming, Aboriginals also work as laborers, for extremely low wages. Although there is no official data on the income they obtain from these activities, the evidence seems to suggest that, at present, they do not earn more than US\$ 128 per year.

6.2.6 Pensioners

This category comprises two sub-groups of individuals: (i) those who receive an "old-age pension", that is, individuals over 65 years of age who do not have a retirement pension from previous employment and do not earn a monthly income above US\$ 20; (ii) those who have retired from wage and salaried employment, such as teachers, civil servants, sugar and bauxite industry employees, and others.

In addition to the above sub-groups, there is a category of persons (the disabled and women who are unable to work, live in a household with no male provider and have a large number of children) who are not classified as pensioners, but who receive financial support (known in Guyana as "public assistance") from the government on a monthly basis. The level of assistance received by these persons, as well as by those belonging to the other sub-groups, is usually very low relative to their subsistence needs. For instance, in 1988, old-age pensioners and public assistance recipients received US\$ 10.5 and US\$ 5.5 per month, respectively, whereas monthly subsistence food requirements for an individual were estimated at US\$ 28.8.

6.3 Poverty differentials in Guyana

Rural poverty in Guyana is mainly concentrated in two major areas, namely, in

the interior settlements located along the borders with Venezuela and Brazil, and among population centers on the coastal belt. As Figure VI.3 shows, the first of these pockets of poverty coincides with Amerindian areas (Barima-Waini, Potara-Siparuni and Upper Takatu-Upper Essequibo regions). The other major poverty areas fall mainly along the strip of land where most of the country's agricultural production takes place.

Nutritional status as a poverty indicator differs markedly among the regions of the country. According to recent information³⁶, in 1987 the Upper Demerara-Berbice, Demerara-Mahaica, and Barima-Waini regions showed the highest incidence of severe malnutrition among the children under five years of age who were surveyed (Table VI.5). Thus, in terms of this indicator, they seem to be among the most poverty-stricken areas in the country.

6.4 Recent evolution of rural poverty

Rural poverty has always been a reality in Guyana; however, as shown by several indicators, there has been a marked increase in the incidence of this problem during the last decade. According to Figure A.1, real per capita agricultural GDP for the rural sector stagnated at approximately G\$ 1,700 during most of the 1985-89 period. Considering the negative growth rate of the rural population, it is quite likely that the income level of agricultural workers followed a similar trend, at best.

The relatively poor performance of Guyanese students at CXC examinations (Table VI.6) suggests that the country's educational system has experienced a significant deterioration, particularly since the mid-1970s, when schools were nationalized and education was provided free from

³⁶ GAHEF, A National Food and Nutrition Policy for the Cooperative Republic of Guyana, 1987.

TABLE VI.5 - NUTRITIONAL STATUS OF CHILDREN UNDER AGE 5, BY REGIONS - 1987
PERCENTAGE OF CHILDREN SURVEYED

REGIONS	60% SEVERELY MALNOURISHED	60 - 80% MODERATELY MALNOURISHED	NUMBER OF CHILDREN SURVEYED
BARIMA WAINI	2.9	17.6	864
POMEROON SUPENAAM	1.8	19.5	3.127
ESSEQUIBO IS. WEST DEMERARA	2.4	21.3	5.637
DEMERARA-MAHAICA	3.1	19.2	13.853
MAHAICA-BERBICE	2.1	16.3	3.658
EAST BERBICE-CORENTYNE	2.5	22.3	7.107
CUYUNI-MAZARUNI	2.0	24.5	444
UPPER TAKATU-UPPER ESSEQUIBO	1.8	15.2	329
UPPER DEMERARA-BERBICE	4.7	22.2	2.129

SOURCE: Government of Guyana.

TABLE VI.6 - PERCENTAGE OF STUDENTS PASSING CXC* EXAMS, 1985-89

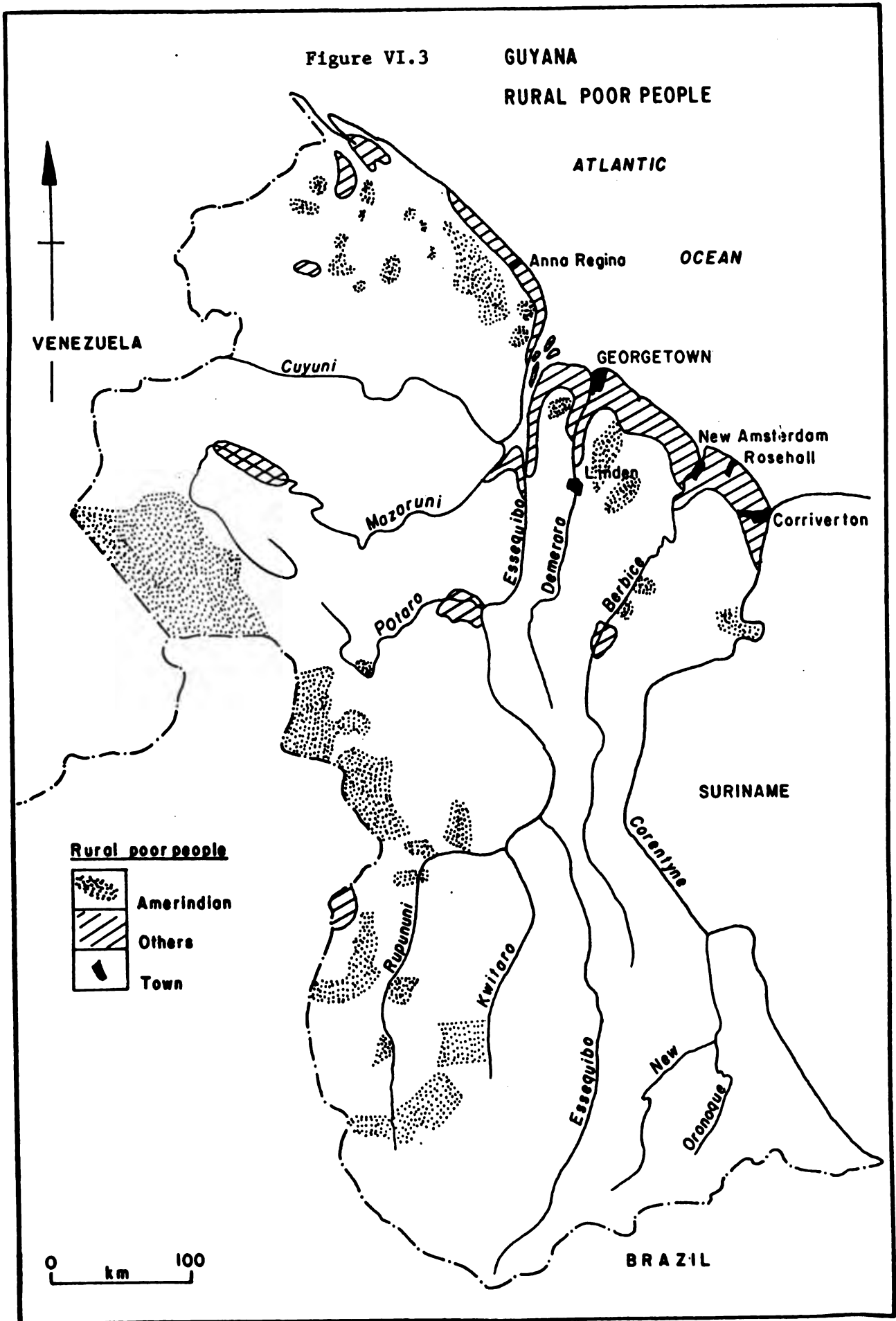
SUBJECTS**	1985	1986	1987	1988	1989
ENGLISH LANGUAGE	20.0	20.0	20.0	11.0	12.0
MATHEMATICS	23.0	16.0	18.0	16.0	13.0
SOCIAL STUDIES	25.0	18.0	23.0	11.0	10.0
INTEGRATED SCIENCES	19.7	14.1	15.0	13.0	13.0

SOURCE: Government of Guyana.

* CXC: Caribbean Examination Council.
** General Proficiency.

Figure VI.3

GUYANA
RURAL POOR PEOPLE



nursery to university. This decline in educational standards resulted from: (i) low levels of government investment in the sector; (ii) a relatively large number of teachers migrating and leaving the profession; (iii) low salaries; (iv) shortages of teaching materials and equipment; and (v) poor working conditions.

Nutritional standards and living conditions have also deteriorated during the past decade. Between 1986 and 1990, per capita calorie intake dropped from 96 to 70 percent of the amount required, while protein consumption declined from 59 to 49 grams per day (Table VI.7). At the same time, the cost of renting, building, purchasing and refurbishing houses rose beyond the reach of most families, thus leading to a deterioration in housing facilities and forcing some people to squat and build shacks on state and private lands. Electricity generation declined by 57 percent (Figure VI.4), leaving an increasing number of urban and rural areas without power for long periods of time. Water supply services also deteriorated significantly; many population centers along the coast are constantly affected either by temporary cut-offs or by a total lack of water.

TABLE VI.7 - FOOD PRODUCTION, HEALTH AND NUTRITION, 1986-90

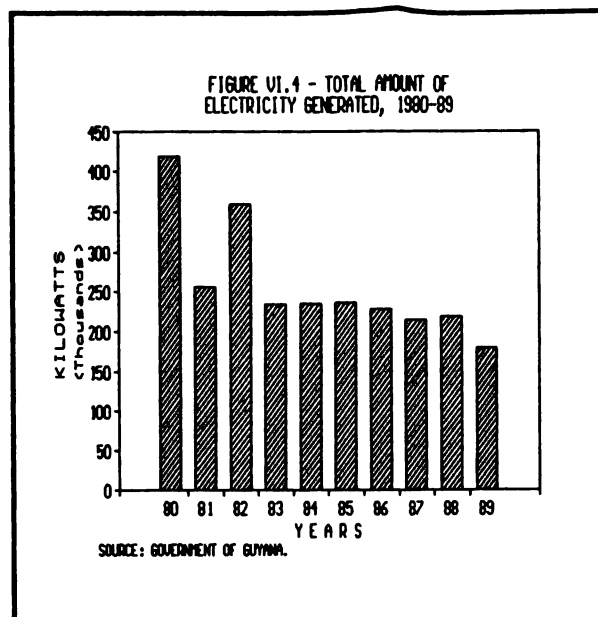
ITEMS	1986	1987	1988	1989	1990
INDEX OF FOOD PRODUCTION PER CAPITA*	97.0	95.4	93.8	89.7	89.0
PER CAPITA SUPPLY OF CALORIES**	96.0	88.5	87.0	77.0	70.0
PROTEINS***	59.2	61.9	58.0	50.1	49.0

* 1974-76 = 100.

** Percentage of requirement.

*** Grams per day.

SOURCE: Government of Guyana



Finally, according to Table VI.8, health conditions have been very poor in Guyana. During the second half of the 1980s, approximately 45 children died annually before age one, life expectancy at birth (per thousand live birth) rose moderately to 65 years, and mortality as a whole was 8 per thousand inhabitants per annum. Several factors contributed to this situation: (i) the deterioration of health facilities; (ii) shortages of medical personnel, supplies and equipment³⁷; (iii) the pollution of water supplies; and (iv) poor sanitation.

Several factors have contributed to the increase of rural poverty in Guyana, including the following: (i) a high rate of inflation, over the last five years, contributed to a decline in real incomes and living standards; (ii) the rapid deterioration of the support infrastructure for agriculture (feeder roads, water controls, irrigation systems and sea defenses); (iii) the decline in the real level of expenditure for agricultural support services, such as extension,

³⁷ Various doctors, nurses and health technicians are migrating or leaving the profession due to poor working conditions and low salaries. Moreover, in view of the deterioration of health services, it is not uncommon for households to import the medical supplies needed by a family member.

TABLE VI.8
GUYANA: MORTALITY AND LIFE EXPECTANCY
AT BIRTH, 1986-1990

ITEM	1986	1987	1988	1989	1990
MORTALITY 1/	8.0	8.0	8.0	7.9	8.0
INFANT MORTALITY 2/	45.3	49.0	47.0	45.0	45.0
LIFE EXPECTANCY 3/	63.0	63.0	63.0	65.2	65.0

SOURCE: Government of Guyana

1/ ANNUAL RATE PER THOUSAND INHABITANTS

2/ ANNUAL RATE PER THOUSAND LIVE BIRTHS

3/ YEARS

research, marketing and transport, which have particularly affected small farmers; and (iv) the general deterioration of the economy, which has led to a decline in rural employment opportunities and an inadequate supply of social services.

6.5 Recent initiatives to combat rural poverty

A number of efforts have been made by public, non-governmental and international organizations to combat rural poverty in Guyana. For instance, in order to reduce the incidence of preventable diseases, the government established an immunization program during the second half of the 1980s, aimed at vaccinating children under age one for BCG, DPT, OPV and measles. The impact of this effort was relatively modest, however, since vaccination coverage levels were quite low.

With respect to the agricultural sector, the government implemented a number of programs during the 1970s and 1980s which indirectly addressed the problems of low farm income and rural unemployment. These efforts included the Food Crop Marketing Program, designed to improve marketing systems for small-scale food-crop farmers; infrastructure projects, such as the Mahaica-Mahacony-Abary Agricultural Development Authority, rehabilitation of

the Tapacuma and Black Bush Polder Rice Development Schemes, the East Bank Essequibo Agricultural Development Project funded by IFAD, and the IDB-Government of Guyana small drainage and irrigation projects in selected rural areas. Although these projects were designed to address constraints to agricultural and rural development, their overall impact has been very modest.

In response to the rapid deterioration of the economy and the lowering of living standards over the last five years, there has been, since 1989, a proliferation of efforts to address problems of rural poverty and development. These efforts include the establishment of the Social Impact Amelioration Program (SIMAP) and activities of the Futures Fund, CIDA, UNICEF, FAO and local NGOs.

SIMAP is a semi-autonomous public-sector agency established in 1989 as a component of the government's Economic Recovery Program to address the adverse impact of stabilization and structural adjustment measures on the more vulnerable segments of the population. SIMAP's activities encompass public services and infrastructure, social services, production activities and institutional strengthening. After an initial delay in getting its programs underway, SIMAP has started to receive increased financial support from external bilateral and multilateral agencies, of which the IDB and the World Bank are the largest.

IDB funding will be initially targeted to twenty social infrastructural and seven social services projects costing about US\$ 1.9 million. If these are successful, SIMAP might receive US\$ 14.3 million to finance other projects. SIMAP also has access to financing for five projects from UNDP, from the Futures Fund and from a number of countries³⁸. The World Bank has also recently approved a loan of US\$ 750,000 to

³⁸ If all the approved projects are funded, SIMAP should have 60 projects under implementation by September 1991.

finance a pilot project focusing on the improvement of urban and rural water supply, sanitary facilities in schools and health centers.

The Futures Fund was initiated in 1991; it is a partnership program between Canada and Guyana to assist the people of the country to improve their economic and social well being. The Fund supports priority projects in such areas as agricultural production, urban and rural enterprise development and employment creation, basic needs services, income-earning opportunities for women with special attention to female heads of households, rural and urban infrastructure improvement. Since the beginning of its operation, the Fund has approved three projects totalling G\$ 3.7 million in areas of feeding, infrastructure and improved health facility in rural areas.

CIDA, UNICEF and FAO have also developed a number of efforts from which the rural poor have benefitted. Between 1988 and 1991, CIDA committed a total of C\$ 1.1 million to various projects in Guyana many of which were targeted to the rural poor.

During the 1987-90 period, UNICEF also financed various projects involving health services, water supply, school feeding, women programs and education. Many of these projects had a direct bearing on the rural sector especially in those in the areas of health and water supply. A total of US\$ 1.5 million was spent by this institution on all its projects during that period.

FAO had a total of five projects in operation in Guyana in 1987-90 from which small farmers benefitted. Three were financed with UNDP resources at a total cost of US\$ 3.8 million. FAO's assistance to NARI's projects totalled US\$ 2.5 million while its strengthening Agricultural Marketing Services and Quality seed development projects totalled US\$ 315,000 and US\$ 995,726, respectively.

As Tables A.8 and A.9 show, a number of projects are presently under consideration by some of these agencies. Their approval and implementation should contribute to the improvement of the situation with regard to rural poverty in Guyana.

VII. AGRICULTURAL INSTITUTIONS

There are two sets of institutions which operate in the agricultural sector of Guyana, public and non-public. Of these, the former are the most important.

Public agricultural institutions can be categorized in three main groups: (i) those that are involved in sectoral administration and management; (ii) those that are directly involved in production activities; and (iii) those that provide support services to agriculture³⁹.

Non-public institutions are small both in numbers and in size. They comprise three main groups: (i) non-governmental organizations; (ii) cooperatives; and (iii) producers' organizations.

The last decade was marked by two major developments with respect to public and non-public institutions in agriculture. First, a decline in the role of public institutions as a result of a program of institutional reorganization and public divestment; and second, the emergence of non-governmental organizations (NGOs), particularly in the latter part of the eighties.

7.1 Structure and organization of agricultural public institutions

There are 22 public sector institutions operating in agriculture⁴⁰: two in the area

³⁹ A few public sector institutions are multi-functional. That is, they can be grouped in one or more of these categories.

⁴⁰ Several institutions have dual functions; for instance, Guyasuco can be grouped as a production as well as a service institution.

of sectoral administration and management; five in agricultural production activities; and fifteen in support services.

7.1.1 Institutions involved in sectoral administration and management

The agricultural sector is administered and managed by two institutions, the Ministry of Agriculture (MoA) and the Regional Administration (RA). The former is a centralized body while the latter operates regionally.

The Ministry of Agriculture

The Ministry of Agriculture is the most important of the public institutions; its main goal being "the total development of the agricultural sector". The functions of the Ministry include: (i) agricultural policy formulation and implementation; (ii) sector planning and programming; (iii) identification, execution and management of agricultural projects; (iv) negotiation of external financing for agricultural projects; (v) institutional and program(s) coordination in the sector; and (vi) data collection, analysis and dissemination of information.

The Ministry is supported by the State Planning Secretariat (SPS) of the State Planning Commission, the central planning institution in the public sector. The SPS's involvement in the agricultural sector is mainly confined to coordination of sectoral programs within the macroeconomic framework and the monitoring of capital projects.

The Ministry is administered by a directorate that includes a Senior Minister, a Junior Minister, a Permanent Secretary, a Deputy Permanent Secretary and a Principal Assistant Secretary responsible for Finance. The Permanent Secretary is responsible for all operational matters of the Ministry.

The MoA is structured into eight departments to discharge its responsibilities

(Figure VII.1). These include: General Administration, Personnel, Finance, Agricultural Planning, Crops and Livestock, Lands and Surveys, Hydraulics and Fisheries. Each department is supervised by a departmental head who reports directly to the Permanent Secretary.

The MoA is financed principally through the annual budget of the central government. Supplemental funds are provided in the form of loans and grants by bilateral and multilateral agencies to finance specific projects and activities.

The Ministry's budget comprises two categories of expenditure, recurrent and capital. As Table VII.1 shows, both categories have been reduced during the 1980s because of the severe financial constraints of the government. Moreover, the MoA's share of government's total current expenditure was quite small in the 1983-88 period (0.8-1.5 percent). Recent data for 1990 shows that 75 percent of the Ministry's current budget was allocated to the Crop and Livestock Division while the remainder was shared among four other departments (Table A.10). The low level of resources for

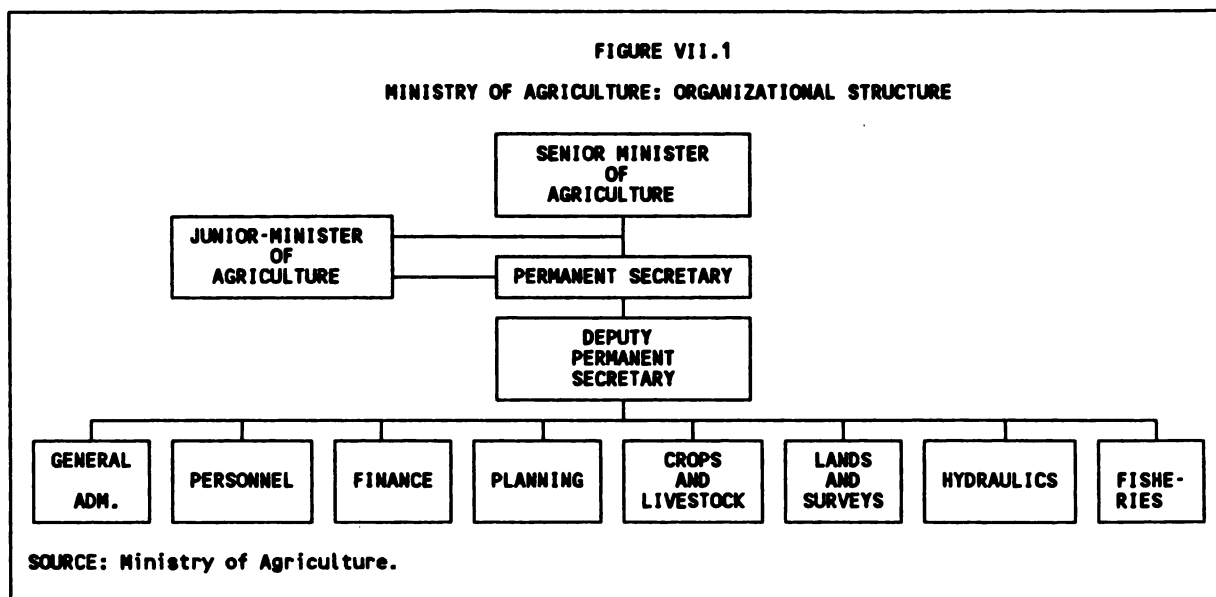
TABLE VII.1 - MINISTRY OF AGRICULTURE, CURRENT AND CAPITAL BUDGET, 1980-88

YEARS	CURRENT BUDGET		CAPITAL BUDGET	
	G\$'000 OF 1988	MoA's SHARE IN GOV. CUR.BUDGET*	G\$'000 OF 1988	MoA's SHARE IN GOV. CAP.BUDGET*
1980	85,300	2.5	495,314	30.2
1981	115,953**	3.6	495,906**	29.7
1982	48,630**	1.7	371,581**	30.2
1983	22,005	0.8	197,625	25.6
1984	26,523**	0.9	155,123**	11.4
1985	30,908	1.5	322,631	31.8
1986	32,753	1.4	188,679	7.3
1987	28,970	0.9	360,288	44.2
1988	33,712	1.3	136,367	14.4

* Percentage.

** Estimates.

SOURCE: Guyana estimates of the public sector's current and capital expenditure for the year 1990.



recurrent expenditures has been a common feature throughout the 1980s and not a recent phenomenon associated with the 1988 IMF stabilization program.

The worsening of the Ministry's financial situation, the gradual deterioration in working conditions and the low level of salaries, together reduced the level and efficiency of the MoA's operations. This in turn affected the overall performance of the sector, particularly of those farms located in more remote areas.

In the last decade, there were four significant developments in the MoA which changed its structure, responsibilities and performance. First, in the early 1980s, the public sector was reorganized into functional areas which placed the MoA in the category of productive sector institutions. Second, there were 5 changes in the Ministerial directorate each of which affected policy direction and management of the institution. Third, in 1980 the extension department was transferred to the Regional Administration. Finally, the research activities of the Ministry were absorbed by NARI.

Under the institutional reform program currently being implemented in the public sector, various functions will be rationalized. It is expected that this reorganization will not impact strongly on the structure and organization of the MoA. However, where duplication of activities and functions exist in other institutions with respect to agriculture, these are expected to be transferred to the MoA.

The Regional Administration (RA)

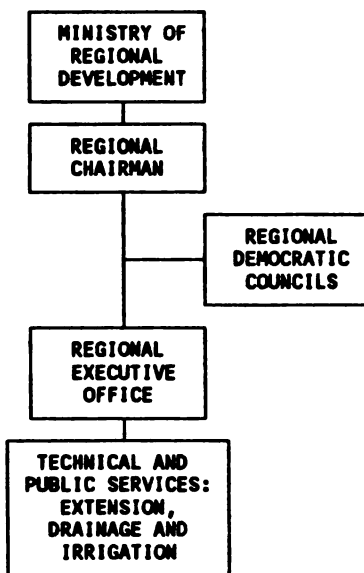
The development of the Regional Administrative system grew out of the new constitution in 1980 which established Guyana as a Republic. This constitution emphasized, among other things, the democratization of local institutions by involving people in the management of their communities⁴¹.

The RA operates in the Administrative Regions of the country integrating all government offices (the Ministries of

⁴¹ The Local Democratic Organization was established as a community organization. It falls within The Regional Administration system.

Agriculture, Education, Finance, etc.) in a single institution at the regional level. It is administratively dependent on the Minister of Regional Development. Each regional office is managed by a Regional Democratic Council which has a Chief Executive Officer or Regional Chairman who is supported by a secretariat.

FIGURE VII.2 REGIONAL ADMINISTRATION: ORGANIZATIONAL STRUCTURE



SOURCE: Ministry of Regional Development.

With respect to agriculture, the main functions of the RA are: (i) provision of technical assistance to farmers through extension and nursery services; (ii) supply of technical facilities and administrative services to facilitate timely procurement and distribution of agricultural inputs and marketing of farmers' products; (iii) execution and maintenance of agricultural infrastructural activities; and (iv) land surveying, development and distribution.

There are two main areas in which there is direct cooperation between the

MoA and the RA. The first relates to supervision of the extension and livestock officers and Crop Reporters assigned in the regions, for which there is dual responsibility. Second, the MoA and the RA (together with other entities such as GRMMA) are responsible for supporting agricultural production through the distribution of inputs and providing support services.

Although the MoA and the RA are involved in similar activities, coordination between the two has been weak. The RA has increasingly provided technical supervision in certain areas which should have been covered by the ministry. The problems of coordination and control between these agencies have become acute in recent years, partly because of an absence of a common approach to policy implementation and clear procedures for control, supervision and reporting.

The RA finances its operations through budgetary allocations by the Central Government and from regional tariffs and taxes. Evidence indicates that the total financial resources available are insufficient for the RA to effectively discharge its responsibilities in the various regions.

Another problem is inefficient management of resources. When the regional system was created, professionals were transferred from the Ministries to the RA. However, some chose to resign from the Public Service rather than relocate to the regions. Consequently, the offices were poorly staffed, affecting the operational efficiency of the institution.

The performance of the RA with respect to regional development of agriculture has been quite deficient. The provision of agricultural extension to farmers has been fragmented and poorly staffed. The activities of the extension agents, livestock officers and crop reporters are not properly coordinated and supervised. Thus, inade-

quate services were rendered to agricultural producers in the regions.

7.1.2 Institutions performing production activities

There are five public institutions performing production activities: Guyana Stock Feeds Ltd. (GSFL), Guyana Fisheries Ltd. (GFL), National Edible Oil Company (NEOCOL), Livestock Development Company (LIDCO) and GUYSUCO. Among these the first three are being divested from state ownership.

GSFL, GFL, NEOCOL and LIDCO

GSFL manufactures stockfeed mainly from imported inputs for poultry and livestock production. GFL, in turn, is engaged in off-shore fishing and in processing fish and shrimp which it sells in the domestic and export markets. The production of both of these institutions has declined significantly due to inefficient management and shortage of foreign exchange to purchase machinery and equipment. Output of growing ration and broiler starter by GSFL has dropped from 117,000 and 592,000 bags in 1980, respectively, to 5,000 and 59,000 bags in 1989.

TABLE VII.2 - GUYANA STOCK FEEDS LIMITED, PRODUCTION OF FEEDS, 1980-89 (Thousand Sacks*)

YEAR	GROWING RATION	EGG RATION	BROILER STARTER	BROILER FINISHER
1980	117	194	592	...
1981	109	171	607	...
1982	49	158	377	...
1983	44	132	308	...
1984	33	163	309	...
1985	31	177	149	137
1986	28	154	114	132
1987	12	131	129	120
1988	15	100	151	108
1989	5	70	59	61

* From 1980 to 1983 feeds were produced in 100 lbs sacks and from 1984 they were produced in 50 Kg. sacks.

SOURCE: GSFL

NEOCOL and GSFL have direct transactions with small farmers. The former purchases copra and coconuts to produce edible oil, while the latter supplies feeds to small producers of poultry and swine. Although it is difficult to evaluate the impact of divestment of these companies on small farmers, it is quite likely that, in the short run, this action may have a negative effect on their operations. An indication of this is that the decline in feed production by GSFL has already led livestock farmers to purchase feed inputs in the open market at relatively higher prices.

Unlike the above institutions, the Livestock Development Company remains a viable commercial enterprise within the public sector. Its main activities are beef production and the production, processing and marketing of milk. LIDCO's operations have a relatively low impact on small farmers since most of its output comes from its own farms.

GUYSUCO

GUYSUCO is a government-owned company that was established in 1976 after the sugar industry was fully nationalized⁴². It is involved in sugar cane farming, sugar processing and distribution. It operates and manages eleven sugar estates located in Regions 3, 4, 5 and 6.

The company is managed by a chief executive officer who reports to the country's President. It is structured into eight divisions, two of which are responsible for the operations in Demerara and Berbice. The remaining six divisions are: administration, agriculture, diversified crops, finance, technical services and industrial relations.

⁴² The government had nationalized two sugar estates of a smaller foreign-owned company a few years before the major nationalization of the sugar industry took place in 1976.

The financial resources of the corporation are obtained from local and foreign sales and loans. Its major source of revenue is the sale of sugar and molasses⁴³. This institution has benefitted from the recent devaluations of the domestic currency. Despite the dramatic fall in sugar production and the shortfall to meet the EEC and US sugar quotas, GUYSUCO's sales in Guyana dollar terms have increased substantially in 1988 and 1989, but its costs have not expanded in the same proportion.

GUYSUCO's operations in the last decade could be characterized by two major features. First, a marked decline in production (Table VII.3). Among other factors, this performance has been associated with: (i) loss of a considerable number of skilled managers and researchers; (ii) low level of capital expenditure in the 1970s and 1980s; (iii) deterioration in factory plant, field equipment and physical infrastructure; (iv) shortage of machinery parts and mechanical equipment; and (v) industrial disputes resulting in prolonged critical stoppages and loss in output.

TABLE VII.3 - INDICATORS OF THE SUGAR INDUSTRY'S PERFORMANCE, 1978-89

YEAR	AREA HARVESTED ('000 ACRES)	CANE YIELD (TON/ACRE)	TC/TS	SUGAR YIELD (TON/ACRE)	SUGAR OUTPUT ('000 TONS)
1978-80	131.3	31.4	13.1	2.4	298
1981-83	128.3	30.5	13.8	2.2	280
1984-86	115.7	29.1	13.7	2.1	243
1987	106.0	29.1	14.0	2.1	221
1988	81.5	29.0	14.0	2.1	168
1989*	84.0	28.9	14.5	2.0	167

TC/TS = Tons of cane per ton of sugar
* Preliminary

SOURCE: GUYSUCO

The other major feature is GUYSUCO's decision to diversify its

⁴³ Sales from other crops in 1988 and 1989, for instance, represented less than one percent of total revenue.

operations and divert resources into other crops⁴⁴. The performance of these activities has been poor, with yields below those of private farmers. The diversion of resources has affected sugar production and the country's ability to meet its export quota requirements.

GUYSUCO is currently undergoing important institutional changes as part of a general program to restructure public sector enterprises. In 1989, the government and the former sugar estate owners, Bookers, signed an agreement by which that company will provide management services and technical assistance to GUYSUCO for the enhancement of its performance⁴⁵.

Since the new arrangement with Bookers, some organizational changes have taken place which include replacement of GUYSUCO's management team and efforts to streamline operations at the estate level. Wages for sugar workers have also increased. The impact of these changes on sugar cane farmers is expected to be positive because of more efficient management, increased investment for equipment, machinery, infrastructure and improvement of other support services. In addition, rural employment opportunities might increase as a result of an expected expansion of sugar cane production.

7.1.3 Institutions Providing Agricultural Services

Marketing

Four public institutions provide marketing services to agriculture in Guyana: Guyana Rice Milling and Marketing

⁴⁴ These non-sugar activities include: (i) cultivation of rice, sorghum, soya beans, corn, cowpeas, onions and cassava; (ii) livestock production; (iii) establishment of dairy farms and a milk processing plant; and (iv) production of mutton and aquaculture.

⁴⁵ The prime objective of this arrangement is to improve the industry's performance so that its production could reach a level of 250,000 tons of sugar annually.

Association (GRMMA), Guyana Rice Export Board (GREB), New Guyana Marketing Corporation (New GMC), and GUYSUCO⁴⁶.

GRMMA was established in 1985 when the GRB was restructured. Its main functions are to: (i) collaborate in the development of the rice industry in Guyana; (ii) purchase, process and sell rice; and (iii) supply GREB with rice, and paddy as required for export.

GRMMA has experienced many operational problems. The loss of staff has been high, and the corporation has found it increasingly difficult to recruit new personnel because of the uncertainty of tenure caused by its future divestment. Storage facilities, especially in Georgetown, are underutilized due to low levels of rice production and the expansion of private rice milling operations. Moreover, the institution inherited some of the problems of GRB related to rice grading and late payment to farmers.

Considering the government's decision to move towards a free market environment, GRMMA has been proposed for divestment. When and if this divestment takes place, small rice farmers may be affected negatively in the short run, particularly those that are inefficient.

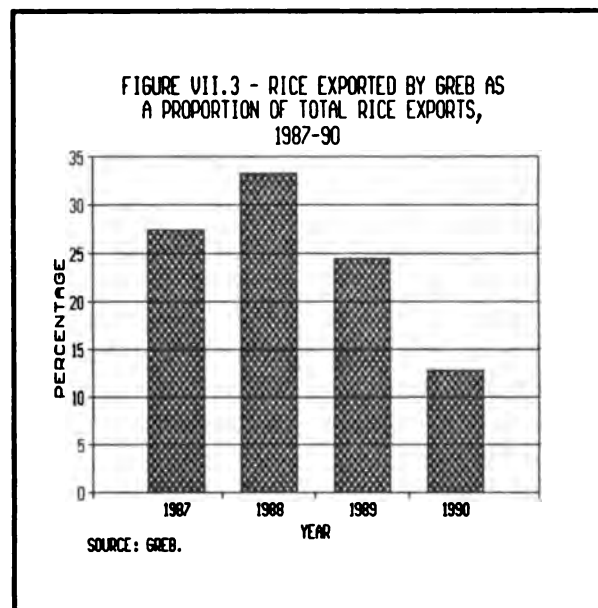
GREB was also established in 1985 when GRB was restructured. Up to 1987, it enjoyed sole responsibility for exporting paddy, rice and by-products. Since then, its monopoly has been eliminated through the granting of export licenses to private rice millers. In addition, GREB acts as an intermediary between producers and purchasers in foreign markets.

This institution is self-financing; its

⁴⁶ This institution is the single buyer and seller of the sugar industry's output.

funds come from a commission it levies on rice exports. Presently, GREB charges between 3 and 15 percent of the export value depending on its role in the particular transaction.

Like GRMMA, GREB has also been identified for divestment. The implementation of this decision may have, at most, a marginal impact on rice farmers since, presently, an increasing number of them are selling their output to private exporters.



The New GMC was established in 1986 as a result of a reorganization of the Guyana Marketing Corporation (GMC). Its main objectives are to provide market information to producers and consumers and to promote exports of non-traditional agricultural products.

The activities of the New GMC are marketing surveys, collection of market information on non-traditional agricultural products, and intermediation between producers and large purchasers of agricultural commodities locally and abroad. During 1990, the Corporation serviced 365 exporters (including potential exporters) and 71 importers of non-traditional products.

This institution is financed by the Central Government, but it expects to become self-financing in the longer term. It has also received financial assistance from the Food and Agriculture Organization⁴⁷.

The main constraints of the New GMC are: (i) lack of an efficient communication system to link local producers and importers; and (ii) insufficient professional staff.

The New GMC has not been able to make a direct impact on small farmers except for those engaged in pineapple production⁴⁸. However, its services benefit small farmers through wholesalers and middlemen, who have been its main clientele.

Credit

GAIBANK is the main agricultural credit institution within the public sector. It was established to promote and provide financial investment credit and advisory services to development projects in agriculture and industry. To pursue this goal, it has depended largely on external financing since the government's budgetary allocations have been insufficient.

The Bank was set up initially to provide loans solely to farmers, but in 1978 its functions were expanded to include lending to industry and agricultural businesses. Its main lending policy is to supply credit to small farmers and cooperatives in agriculture and industry. In the early 1980s, this institution disbursed most of its loans to agriculture, but in the second part of that decade the industrial sector received a higher share of total loans. With regard to agriculture, most of the loans were given to sugar and rice activities.

⁴⁷ The assistance comprised equipment, training courses and recruitment of consultants to assist the entity in developing systems to facilitate its operations.

⁴⁸ Most of the exports have been directed to countries such as Barbados and St. Lucia which have large tourism sectors.

In recent years, a number of factors have affected GAIBANK's operations: (i) persistent currency devaluations and high interest rates charged on international credits; (ii) an increased number of loan defaults and payment arrears; (iii) loss of technical and professional staff; and (iv) weak coordination between the Bank's activities and those of the research, extension and marketing institutions. As a result, GAIBANK has not been able to effectively support agricultural activities, particularly those of small farmers.

Agricultural Research

In the last 15 years, much of the agricultural research was done by public sector institutions. Currently, research activities are undertaken by the National Agricultural Research Institute (NARI) and GUYSUCCO.

NARI was created in 1985 as the nucleus public sector institution responsible for agricultural research in Guyana. It is an outgrowth of a merger of the Rice Experimental Station and the MoA's agricultural experimental unit. The Institute is structured into a headquarters office and field units located in each of Guyana's five broad ecological zones.

NARI has been responsible for conducting research on livestock and crops, except sugar cane. The main focus of its activities has been on: seed production, development and local adaptation of high yield varieties. The Institute has also worked on tissue culture with four crops: plantains, pineapples, cassava and sweet potatoes. In addition, it has tested smaller and less expensive machinery and equipment for adaptation and use by small farmers. Its research program is also linked with activities of other institutions in the agricultural sector.

The Institute's operations are mainly funded by the Central Government but

sometimes it receives financing from regional, bilateral and international institutions. Such financing, however, has been very limited.

With respect to human resources, NARI has experienced a loss of its staff due to low salary levels and a deterioration in working conditions. In 1990, the number of professional and technical personnel corresponded to less than 25 percent of the number needed.

The outputs of NARI's operations are not very visible to the farming community and the benefits to small farmers in particular have been marginal. These are a result of shortages of financial resources, personnel, facilities and equipment. Furthermore, the research program lacks the support of a strong extension service.

Besides NARI, GUYSUCO has also undertaken research on the feasibility of producing food crops under its diversification program⁴⁹. The company's success in these activities however, has been quite poor and its research efforts did not have any significant impact outside of the sugar sector⁵⁰.

Extension

During the last decade the extension services were supplied by five main public institutions: GUYSUCO, GRB, GAIBANK, MoA and RA. GUYSUCO is responsible for the extension services in sugar cane; GRB supplied extension services to rice⁵¹

⁴⁹ These include production of corn, legumes, vegetables, rice, aquaculture development and milk processing into butter and cheese.

⁵⁰ GUYSUCO's participation in non-sugar crop research has declined in the last two years because of: (i) the uneconomic viability of these activities; and (ii) the focus of the new management on developing GUYSUCO's relative comparative advantage in sugar.

⁵¹ With the reorganization of the GRB into three entities, responsibilities for research and extension were transferred to NARI and the RA respectively.

and GAIBANK provides an extension service to support its credit program in agriculture. The MoA and the RA together provide most of the extension services outside of sugar and rice.

When the regional system was established, the extension service of the MoA was transferred to the RA. In principle, both the RA and the MoA should supervise and administer the extension activities, but the Ministry has not given proper technical supervision. As a consequence, the extension service is fragmented and it lacks clear policy orientation. This situation has been further affected by a decline in budgetary allocations at the regional level.

The weak extension service in non-sugar agriculture has had adverse impacts on farm production and incomes. Small farmers, particularly those in non-traditional agriculture, have been severely affected by the lack of technical services. Of the various groups of small farmers, those located in the riverain areas and interior regions (including the Amerindian communities) have been the most affected.

Input supply

The public sector supplies inputs to agriculture through: Guyana National Engineering Corporation (GNEC), Guyana National Trading Corporation (GNTC), Guyana Stores Limited (GSL) and the regional Administration. GNEC operates a foundry which manufactures small hand tools such as cutlasses and files. GSL and GNTC import a variety of machinery, equipment and spares which they distribute in various regions. GNTC is almost completely divested and its functions have been taken over by GSL and private firms.

Prior to 1982, GRB was responsible for the distribution of seeds, fertilizer and chemicals. With the reorganization of the rice industry, this function was transferred to the Regional Administration.

In the last decade the availability of foreign exchange has been a major constraint to import inputs. As Table VII.4 shows, foreign exchange allocations to distributors of inputs in recent years have been insufficient and irregular. As a result, farmers have relied on the parallel market to meet their needs, but at very high prices⁵². In general, the high costs have affected these producers, particularly those in the rice sub-sector who use a high proportion of imported inputs in production.

TABLE VII.4 - GOVERNMENT ALLOCATION OF FOREIGN EXCHANGE TO MAJOR DISTRIBUTORS OF AGRICULTURAL INPUTS, 1984-88

INSTITUTION	FOREIGN EXCHANGE ALLOCATED (US\$ THOUSAND)				
	1984	1985	1986	1987	1988
GNTC	1,202	2,842	3,584	3,878	4,222
GSL	320	942	1,020	935	1,524
OTHERS	20	84	86	32	311
TOTAL	1,542	3,868	4,690	4,845	6,057

SOURCE: Input distributors.

Infrastructure services

Only one public institution provides infrastructure services to the agricultural sector: the Hydraulics Department of the Ministry of Agriculture. This department is structured into two sections: Sea Defences and Drainage and Irrigation.

The primary role of this institution is to maintain and improve existing infrastructure to support agricultural production. It is responsible for designing and constructing sea and river defences and for protecting low-lying areas from floods. In addition, it executes drainage and irrigation works.

⁵² With the devaluations of the domestic currency the cost of imported inputs has become extremely expensive.

The Department works very closely with the Regional Administration, GRMMA and other units of the MoA. Although most of its activities are concentrated on the coastal belt, the Hydraulics Department does not provide a service to sugar cane lands farmed by GUYSUOCO unless this is specifically requested⁵³.

The activities of the Department are financed from appropriations in the MoA's annual budget and from international financial institutions. According to Figure VII.4, the real level of funding to this institution from the central government has declined dramatically during the 1980-88 period. As a consequence its activities were increasingly dependent on external sources for finance⁵⁴.

Underfunding has resulted in low levels of maintenance of the sea defences and water control systems over the years. This has brought about a virtual collapse of the sea defence system and support infrastructure⁵⁵, affecting agricultural production, particularly rice and livestock.

Like most other public sector institutions, the Hydraulics Department has suffered from the loss of qualified engineers and technical support staff. However, in recent years, it has benefitted from assistance of the United Nations Volunteer Program which provided some engineers and technicians.

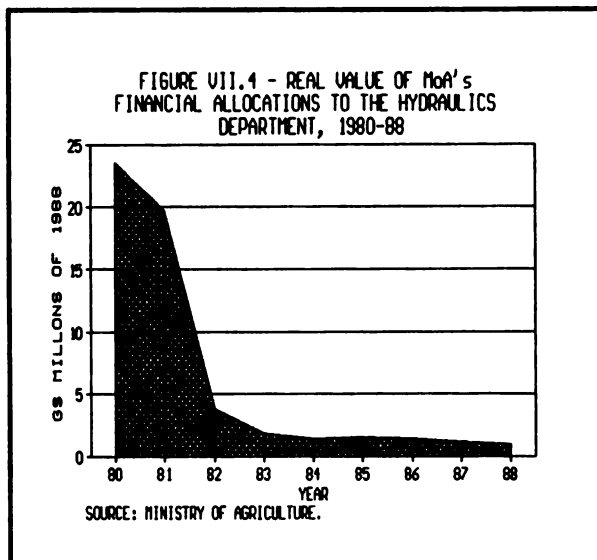
7.2 Non-Public Institutions in Agriculture

In addition to public institutions, the

⁵³ GUYSUOCO provides infrastructural works in sugar cane lands but the Hydraulics Department is still responsible for the sea defences and support infrastructure in areas adjacent to sugar cane farms.

⁵⁴ The main source of funds for investment projects in the 1980s was the IDB.

⁵⁵ At present, it is estimated that there are forty-five breaches in the sea defence throughout the coastal region. Besides these breaches, the main drainage and irrigation projects are in a state of serious disrepair.



agricultural sector of Guyana is also served by non-governmental organizations (NGOs), cooperatives and producers' organizations.

7.2.1 NGOs

Unlike most countries in the Caribbean, NGOs have traditionally not been a part of the institutional framework (whether social or economic) in Guyana. Only after the change in the political leadership in 1985 the development of private and non-public institutions was encouraged⁵⁶.

There is very little information available on the number of NGOs in Guyana. Nevertheless, at least three of these organizations could be identified⁵⁷: Futures Fund, Red Thread and Beacon Foundation.

Futures Fund is a partnership program between Guyana and Canada. It is managed by a Canadian executing agency, the Canadian Hunger Foundation. The Fund

⁵⁶ There are a number of small social and political groups which operate in an ad hoc manner, performing activities in urban communities that are at times similar to those of NGOs.

⁵⁷ No directory or registry of NGOs exists in the country.

has been established to finance the local costs of projects developed by Guyanese corporations, organizations and emerging groups. Specifically, the Fund supports projects that fall in several categories which include: (i) the rural disadvantaged - subsistence farmers, agricultural workers, the landless, the non-farming rural poor and those engaged in small-scale fisheries; (ii) women, especially female heads of households; (iii) the aged, particularly on fixed incomes; and (iv) residents of hinterland communities including the Aboriginal Indians. This institution has been established fairly recently (February 1991); and it has so far received a number of project proposals which are under consideration for funding (Table A.9).

Red Thread is a community group which organizes poor, rural and semi-rural based women in economic activities for wider development and income generation. The major activities developed by this NGO consist of embroidery, production of cards, nibbi weaving and stationery.

Beacon Foundation is primarily an urban-based NGO that is involved in feeding programs, provision of night shelter, care facilities for street children, hospital and medical services. Some of these activities target the rural poor such as the Leonora Care Center which operates a feeding program and provides medical services.

7.2.2 Cooperatives

The development of these institutions was strongly encouraged in the 1970s and early 1980s when "Cooperative Socialism" was the political philosophy of the government. The goal during that period was to make the cooperative movement one of the three pillars of the economy⁵⁸.

⁵⁸ The two other pillars were the private and the public sectors.

Cooperatives were encouraged in various sectors (agriculture, mining and quarrying, processing and manufacturing, financial services, etc.). Nevertheless, since the mid-1980s, the number of active ones have declined dramatically, although most of these are still on the register of cooperatives. With the decline of the economy and change in political leadership, the strong emphasis on cooperatives was gradually reduced by the government in favor of more private sector participation in economic activities. Although no precise data is available, it is estimated that less than one-tenth of the cooperatives registered in the 1970s and 1980s are functional today. Moreover, most agricultural cooperatives have disappeared; the most active ones are a few engaged in fishing and related activities.

The decline in cooperatives can be attributed to the following factors: (i) they were imposed by the government rather than being spontaneously developed; thus, their basis was not sufficiently strong and they quickly became non-functional; (ii) they suffered from a shortage of working capital; and (iii) they lacked managerial capabilities.

7.2.3 Producers' organizations

Producers' organizations have traditionally not been important in Guyana's agricultural sector. In spite of some efforts made by the government, very few farmers organizations exist.

The **Rice Producers Association (RPA)** is the oldest and only producers' organization which falls within the legal ordinance that defines such organizations. Its main function is to protect, promote and advance the interests of rice farmers. The RPA was established to represent rice producers on the Statutory Rice Board. This representation existed until the early 1970s, after which the RPA was not officially recognized by the government as an

organization representing rice farmers⁵⁹

Until 1973, the RPA received a grant from the GRB to finance its operations. Since then, it has been largely funded by subscriptions and donations from its members. Its annual income is estimated to be G\$ 300,000.

Currently, the RPA has no representative on any of the rice institutions, nor in other public agricultural institutions such as NARI. The Association, nevertheless, makes efforts to further the interests of rice farmers with the various public sector agencies in the rice industry.

The **Guyana Agricultural Producers Association (GAPA)** and the **Guyana Cane Farmers Association (GCFA)** are two small producers' organizations. The former is an informal group without any legal status and its main functions are to look into the problems of small farmers, except those that produce rice. However, this association has mainly represented tobacco farmers on issues such as prices and quotas. It is financed by donations from farmers, especially the tobacco growers who contribute an equivalent of 2 kilograms of tobacco per crop. The impact of GAPA in other areas of agriculture is quite negligible.

The GCFA was set up about two decades ago to represent the interests of small sugar cane farmers particularly with respect to prices, grading and support services. Its operations, however, have ceased in recent years.

⁵⁹ The RPA has been affiliated to the opposition political party which is the main reason why it was no longer recognized as a producer organization by the government.

STATISTICAL APPENDIX

TABLE A.1
GROWTH RATE OF REAL GDP AND SECTORAL CONTRIBUTION TO GDP, 1980-89

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989*
REAL PRODUCTION**	GROWTH RATES									
TOTAL GDP	1.8	-0.5	-10.4	-9.3	2.1	1.0	0.2	0.6	-3.1	-5.6
AGRICULTURE***	0.5	2.3	-1.4	-3.7	3.4	0.0	3.7	-5.8	-8.7	-5.5
MINING SECTOR	6.1	-11.4	-31.5	-40.0	21.6	19.4	-8.1	10.3	-10.0	-18.5
MANUFACTURING SECTOR	0.8	6.1	-12.9	-16.4	-5.9	-3.1	0.0	-7.5	-5.2	-13.6
CONSTRUCTION SECTOR	2.9	1.4	-9.9	-4.7	0.0	0.0	-1.6	5.0	0.0	-1.9
GDP ORIGIN	PERCENTAGE									
AGRICULTURE***	23.1	23.8	26.4	28.5	28.7	28.5	29.4	27.5	26.0	26.2
MINING	16.5	14.8	11.3	7.6	9.1	10.7	9.7	10.6	10.0	8.8
MANUFACTURING	16.5	17.6	17.3	16.1	14.7	14.1	14.1	13.0	12.8	11.8
CONSTRUCTION	6.0	6.2	6.3	6.5	6.4	6.3	6.3	6.5	6.8	7.2
SERVICES	37.9	37.6	38.7	41.3	41.1	40.4	40.5	42.4	44.4	46.0

* Preliminary estimate.

** Factor costs.

*** Includes Forestry and Fishery.

SOURCE: IDB, Economic and Social Progress in Latin America, 1990.

TABLE A.2
BALANCE OF PAYMENTS, 1980-89

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989*
	(Millions of dollars)									
CURRENT ACCOUNT	-128.8	-183.8	-141.2	-157.5	-94.5	-96.6	-112.3	-109.4	-54.2	-130.5
Merchandise Trade	2.5	-53.2	-12.7	-32.4	15.3	5.0	-2.4	4.8	20.6	-3.9
Exports (FOB)	388.9	346.4	241.4	193.4	216.9	214.0	238.7	240.5	214.6	206.8
Imports (CIF)	386.4	399.6	254.1	225.8	201.6	209.1	241.1	235.7	194.0	210.7
Net Services	-130.4	-130.7	-120.8	-124.0	-114.4	-96.4	-126.1	-134.9	-94.3	-147.5
Net Transfers	-0.9	0.1	-7.7	-1.1	4.6	-5.2	16.2	20.7	19.5	20.9
CAPITAL ACCOUNT	85.3	162.7	97.7	99.5	131.9	105.7	78.3	59.1	59.7	596.6
Net Public Capital	93.2	130.1	32.5	60.7	131.7	94.2	N.A.	N.A.	N.A.	N.A.
Net Private Capital	-5.7	25.5	60.3	41.0	1.0	13.1	N.A.	N.A.	N.A.	N.A.
Ext. Transact. by the Monetary Sector	-2.2	7.1	4.9	-2.2	-0.8	-1.6	N.A.	N.A.	N.A.	N.A.
ERRORS AND OMISSIONS	0.4	-10.5	43.2	58.3	-13.4	-4.6	-28.4	-24.2	13.4	-2.3
CHANGE IN RESERVES (— = increase)	43.2	31.6	0.4	-0.3	-24.0	-4.6	62.4	74.6	21.0	-463.9

* Preliminary estimate

SOURCE: IDB, Economic and Social Progress in Latin America, 1990.

TABLE A.3
PRODUCTION OF SELECTED AGRICULTURAL COMMODITIES, 1977-90

COMMODITIES	UNITS	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
RICE	'000 Tons	210.0	182.0	142.0	166.4	163.0	179.1	145.3	104.1	153.7	168.3	144.4	131.8	142.1	94.6
SUGAR	'000 Tons	242.0	325.0	298.0	269.6	300.8	287.7	251.9	241.9	243.0	245.4	221.0	167.6	164.8	129.9
COCONUTS	Mn. Mts	25.0	25.0	35.0	42.2	43.0	48.0	50.0	50.0	51.0	51.1	45.4	45.4	48.6	NA
REFINED OIL	'000 Gal.	312.0	366.0	447.0	594.0	401.0	158.8	38.8	14.8	179.5	511.9	355.5	359.6	327.7	616.0
CITRUS	'000 Gal.	11.6	10.7	10.3	10.7	10.7	10.7	10.7	10.7	11.4	13.2	11.0	7.3	5.3	NA
GROUND															
PROVISION	'000 Gal.	24.1	27.7	17.9	17.9	17.9	20.5	25.0	29.0	38.0	44.5	50.3	39.0	37.2	NA
PLANTAINS	'000 Gal.	19.2	21.0	11.2	11.2	11.2	12.8	15.6	17.9	20.5	24.2	20.8	22.4	21.9	NA
CORN	'000 Gal.	4.9	6.2	4.9	4.9	4.9	4.9	4.9	11.2	16.2	17.4	9.5	14.2	15.8	NA
GRAIN	'000 Gal.	3.1	2.2	1.8	1.7	0.7	0.7	0.8	0.7	1.1	1.8	2.9	2.9	2.9	NA
LEGUMES	'000 Gal.	1.3	1.3	1.3	1.3	0.8	0.9	1.0	1.0	1.2	1.5	1.0	0.9	1.0	NA
PINEAPPLES	'000 Gal.	1.8	1.8	1.8	1.8	1.8	1.9	2.2	3.6	3.7	5.3	7.9	9.8	11.0	NA
TOMATOES	'000 Gal.	2.7	2.7	2.7	2.8	2.9	2.9	2.9	3.0	3.0	3.7	2.4	2.3	2.3	NA
PEANUTS	'000 Gal.	0.4	0.4	0.9	0.7	0.7	0.7	0.7	0.6	0.6	1.4	1.7	1.5	1.6	NA
CABBAGES	'000 Gal.	1.3	0.9	0.9	0.8	0.9	1.0	1.1	1.3	1.6	2.1	0.6	0.8	1.6	NA
MILK	Mn. Gals.	NA	NA	NA	2.9	3.0	3.2	3.3	3.8	4.9	6.2	6.9	7.6	7.8	NA
BEEF	'000 Tons	3.1	1.8	1.8	2.2	2.0	2.2	2.2	1.6	1.6	1.7	1.8	2.0	2.4	2.2
PORK	'000 Tons	2.2	1.8	1.8	1.4	1.3	1.1	0.8	1.0	1.1	1.1	1.1	1.2	1.0	0.9
TABLE EGGS	Mn. Eggs	53.0	33.0	33.0	55.9	51.0	48.4	36.3	49.0	49.3	49.2	35.0	14.0	30.4	13.5
POULTRY MEAT	'000 Tons	7.1	10.2	10.2	10.3	10.3	7.0	3.8	4.1	2.8	3.0	3.6	3.9	2.2	2.1
FISH	'000 Tons	18.3	14.3	14.3	17.6	18.3	21.5	22.7	27.7	38.1	38.5	40.3	40.6	31.7	32.5
SHRIMP	'000 Tons	3.1	3.1	3.1	3.6	3.0	3.2	2.7	2.1	1.9	2.3	2.4	1.8	1.5	1.5

NOTE: NA = Not Available.

SOURCE: Planning Division, Ministry of Agriculture.

TABLE A.4
CONTRIBUTION OF PRIVATE FARMERS TO TOTAL
SUGAR PRODUCTION, 1982-89
(L. Tons)

YEAR	PRIVATE FARMERS (1)	TOTAL INDUSTRY (2)	(1)/(2) PERCENT
1982	37,925	287,725	13.2
1983	33,777	251,870	13.4
1984	26,699	241,440	11.0
1985	28,589	243,000	11.8
1986	23,298	245,995	9.5
1987	18,056	220,440	8.2
1988	11,403	144,035	7.9
1989	7,915	164,447	4.8

SOURCE: Own Estimates Based in GUYSUCO Figures.

TABLE A.5
RETAIL PRICES OF PRICE CONTROLLED ITEMS, 1980-86

PRODUCTS	1980	1981	1982	1983	1984	1985	1986
FULL CREAM POWDERED MILK							
FRICO 400G					6.4	6.4	6.4
900G				11.2	13.5	13.5	13.5
1800G				21.0	25.6	25.6	25.6
CANADA BEST 2KG			18.7	18.7	32.0	32.0	32.0
500G			5.5	5.7	8.7	8.7	8.7
MARGARINE - GOLDEN CREAM							
1 LB. TUB	1.8	2.6	2.6	2.6	4.4	4.8	8.3
2 LB. TUB	3.5	5.1	5.1	5.1	8.6	9.1	16.2
2 1/2 LB. TUB	4.3	6.2	6.2	6.2	--	--	--
1 LB. PKT	--	--	--	--	--	--	8.0
EDIBLE OIL: REFINED COCONUT OIL	2.0	2.0	2.4	3.8	3.8	11.1	11.1
PETROLEUM PRODUCTS							
DIESEL FUEL	3.7	4.4	4.5	4.5	6.1	6.3	6.3
KEROSENE	3.8	4.6	4.4	4.4	5.7	5.4	5.4
GASOLINE REGULAR	5.1	5.4	5.4	5.4	7.4	7.1	--
GASOLINE SUPER	5.3	5.7	5.7	5.7	7.7	8.0	8.0
POULTRY PRODUCTS							
CHICK STARTER 2 LBS.	0.7	0.9	1.0	1.1	1.1	1.6	1.6
GROWING RATION 2 LBS.	0.6	0.7	0.9	1.1	1.1	1.4	1.4
EGG RATION 2 LBS.	0.7	0.8	1.0	1.1	1.1	1.5	1.5
BROILER STARTERS 2 LBS.	0.8	1.0	1.1	1.2	1.2	1.8	1.8
SUGAR							
WHITE	--	--	--	0.5	0.8	0.8	1.0
DARK	--	--	--	0.3	0.8	0.8	0.8
RICE							
PARBOILED 2 LBS.	0.8	1.0	1.0	1.0	N.A	1.5	98.0
WHITE 2 LBS.	0.8	1.0	1.0	1.0	N.A	1.9	98.0

SOURCE: Ministry of Trade.

TABLE A.6
ANNUAL AVERAGE WHOLESALE PRICES OF SELECTED AGRICULTURAL PRODUCTS, 1986-90
(GSS PER LB)

COMMODITY	1986	1987	1988	1989	1990
VEGETABLES					
BORA	3.20	26.32	5.69	10.07	16.18
BOULANGER	1.09	1.24	1.64	3.50	15.02
CABBAGE	3.66	5.22	9.49	8.91	25.18
CUCUMBER	1.20	1.04	1.29	2.47	3.33
OCHRO	1.41	1.59	2.11	4.10	9.14
PUMPKIN	0.83	0.95	1.23	2.18	2.80
SQUASH	0.41	0.77	1.33	7.15	5.18
TOMATO	3.10	4.41	6.54	11.61	24.15
STARCH FOOD					
CASSAVA (SWEET)	0.70	0.75	0.68	2.52	6.41
EDDO	1.24	1.45	2.64	3.78	5.00
PLANTAIN	0.96	0.88	1.76	3.66	4.73
SWEET POTATO	1.24	1.22	1.33	4.20	6.75
YAM	2.43	2.81	3.96	5.55	9.50
SEASONING					
ESCHALLOT	6.07	7.06	0.00	13.11	27.77
GINGER	1.32	2.20	4.73	10.35	19.99
PEPPER (HOT)	5.02	4.92	5.87	14.73	51.83
PEPPER (WIRI WIRI)	6.13	7.35	16.41	9.62	48.84
FRUITS					
BANANA (APPLE)	0.75	0.73	1.24	2.12	3.65
BANANA (CAYENNE)	1.05	0.90	2.20	3.67	4.85
LIME (LONG)	0.99	1.34	1.50	0.56	8.23
LIME (ROUND)	1.68	1.54	2.32	0.87	11.35
ORANGE	1.69	1.79	2.69	1.97	9.32
PINEAPPLE	1.37	0.55	2.37	9.90	4.89
WATERMELON	1.58	1.52	2.84	3.90	7.35
DRIED PEAS					
BLACKEYE	10.55	10.10	14.81	24.36	33.18
MINICA #4	8.30	8.08	11.71	17.23	29.40

SOURCE: Ministry of Agriculture.

TABLE A.7

**INSTITUTIONS DEALING
WITH WOMEN'S AFFAIRS IN GUYANA, 1990**

Women's Affairs Bureau
Conference on the Affairs and Status of Women in Guyana
Guyana Federation of Women's Institute (Rural based)
Young Women Christian Association
Army Wives Association
Women's Progressive Organization
Anglican Mother's Union
Red Thread
Lutheran Church Women
Women's Advisory Council of the Trade Union Congress
Bahai Women
Missionary Women's Federation
Georgetown Jaycees Women's Chapter
The United Force Women

SOURCE: Constructed by IICA Office in Guyana based on information provided by the agencies.

TABLE A.8
PROJECTS SUBMITTED TO SIMAP'S CONSIDERATION, 1991

INSTITUTION	PROJECT
Kaboo Landing Women's Group	Cash Crop Cultivation, Pomeroun
Regional Democratic Council of Region 7	Extension of Kurupung Primary School
Regional Democratic Council of Region 4	Rehabilitation of Cane Grove Pum Station
Regional Democratic Council of Region 3	Drilling Well, Hague, WCD
Regional Democratic Council of Region 7	Construction of Health Post Upper Mazaruni
Regional Democratic Council of Region 7	Construction of Nursery School Mazaruni
Women's Affairs Bureau	Mainstay/Whyaka Amerindian Project
Methodist Women's League Nutrition Program	Zeskenderen, Mahalcony ECD
Regional Development Council of Region 3	Rehabilitation of Parika/Bendor Road
Regional Development Council of Region 3	Blackenburg Primary School Equipment and Furniture
Regional Democratic Council of Region 8	Rehabilitation of Road Bartica/Potaro 98 miles
Regional Democratic Council of Region 8	Tractor Road, Airstrip to Kato
Regional Democratic Council of Region 8	Rehabilitation of Trail Chinapau/Paramakatoi
Linden Town Council of Region 8	Rehabilitation of Wismar Market
Regional Democratic Council of Region 6	Rehabilitation of Bridge at Belmont EBB.
Regional Democratic Council of Region 1	Yarakita Market Project, Barima/Waini
Blairmont Nursery Parent Teachers Association	Rehabilitation of Blairmont Nursery School
Regional Democratic Council of Region 5	Supply of Pure Water for School at Hopetown Beach
Regional Democratic Council of Region 6	Rehabilitation of Overwinning Primary School Berbice
Regional Democratic Council of Region 7	Construction of Community School, Mazaruni
Regional Democratic Council of Region 2	Farm to Market Road, Mainstay/Whyaka

SOURCE: SIMAP.

TABLE A.9
PROJECTS UNDER CONSIDERATION BY FUTURES FUND, 1991

<u>INSTITUTIONS</u>	<u>PROJECTS</u>
Ministry of Education	Oral Health Education for Schools
Ministry of Health	Vector Control Services
G.A.H.E.F.	Nutritional Education Pilot Project
Ministry of Education	Basic Sanitation
Leonora Care Center	Leonora Feeding Program
NEOCOL	Kimbia Soybean Project
Rupununi Development Foundation	Sawmill Project
Women's Institute	Handicraft, W.B.D.
GRPA	Integration of Primary Health Care and Family Life, Stanlettown, W.C.D.
Guyana Coalition of Citizens with Disabilities	Poultry Production
Women's Institute	Cash Crops Farm, W.B.D.
Leguan Dairy Farms Association	Infrastructure and Plant Machinery
Siparuta-Amerindian Oralla Women's Groups	Handicraft Program
Eversham Women's Action Group	Cottage Industry/Equipment
Women's Affairs Bureau, Mahaica	Training of Women in Health Education
Rosehall Corentyne	Irrigation Rehabilitation
St. Cuthbert's Water Supply Project	Water Supply
Leonora Care Center	Bakery/Snakette Program
Ann's Grove/Greenfield Sluice	Rehabilitation Project
Mahaicony Methodist School	School Feeding Program
The Bahai Skeldon Hospital Restoration	Hospital Restoration
Chateau Margot	Road Repair Project
YWCA East Bank Essequibo	Training of Women in planting of Crop and Livestock Production
Annandale Primary School Rehabilitation Project	School rehabilitation
Chelsea Park, Mahaica	Establishment of water Pipe Line Project
Crabwood Creek Nursery School Completion Project	School completion

SOURCE: Futures Fund

TABLE A.10
MINISTRY OF AGRICULTURE, COMPONENTS OF THE CURRENT BUDGET, 1990
(G\$'000)

DEPARTMENTS	WAGES AND SALARIES	OTHER	TOTAL
1. ADMINISTRATION	3,309	1,304	4,613
2. CROPS & LIVESTOCK	7,952	32,367	40,319
3. LANDS AND SURVEYS	4,673	1,256	5,929
4. HYDRAULICS	724	1,008	1,732
5. FISHERIES	748	514	1,262
TOTAL	17,406	36,449	53,855

Source: Guyana Estimates of the Public Sector - Current and Capital Expenditure for the Year 1990.

TABLE A.11
 VALUE OF TOTAL EXPORTS (F.O.B.), 1975-89
 (G\$ Millions)

YEARS	TOTAL EXPORTS	BAUXITE	SUGAR	RICE	SHRIMP	TIMBER	MOLASSES	RUM	GOLD	OTHER EXPORTS
1975	840.5	271.9	413.1	84.8	10.4	9.7	5.6	16.7	---	28.3
1976	695.2	288.8	258.7	73.6	12.9	9.7	6.0	12.8	---	32.7
1977	651.8	331.0	185.7	66.8	12.3	9.1	5.8	8.8	---	32.3
1978	739.9	332.0	234.6	96.0	12.4	10.9	8.9	11.6	---	33.5
1979	736.6	326.8	230.6	80.8	17.6	14.3	13.1	15.1	---	38.3
1980	976.5	479.5	307.6	87.5	7.8	16.2	12.3	20.5	---	45.1
1981	953.6	427.4	305.9	110.0	2.7	15.6	12.9	20.6	---	58.5
1982	696.9	282.8	263.6	60.7	2.6	14.8	6.3	14.0	---	52.1
1983	563.3	218.9	214.6	64.9	4.2	13.2	2.3	10.8	---	34.4
1984	811.5	350.9	271.5	81.6	4.7	14.7	3.5	21.6	16.6	46.4
1985	882.9	421.6	282.3	56.6	18.3	17.9	2.0	29.6	17.2	37.4
1986	953.3	351.4	356.2	57.2	23.9	17.7	5.0	32.4	62.3	47.2
1987	2,596.5	841.0	910.8	155.2	265.8 *	43.7	7.5	94.5	165.8	112.2
1988	2,295.8	820.5	712.2	139.1	231.1	28.2	2.2	82.5	184.0	96.0
1989	6,123.2	2,021.5	2,342.0	367.4	608.9	89.1	1.4	209.7	193.1	290.1

* Change in reporting format, since 1987 shrimp exports includes both foreign and local producers.

SOURCE: Bank of Guyana.

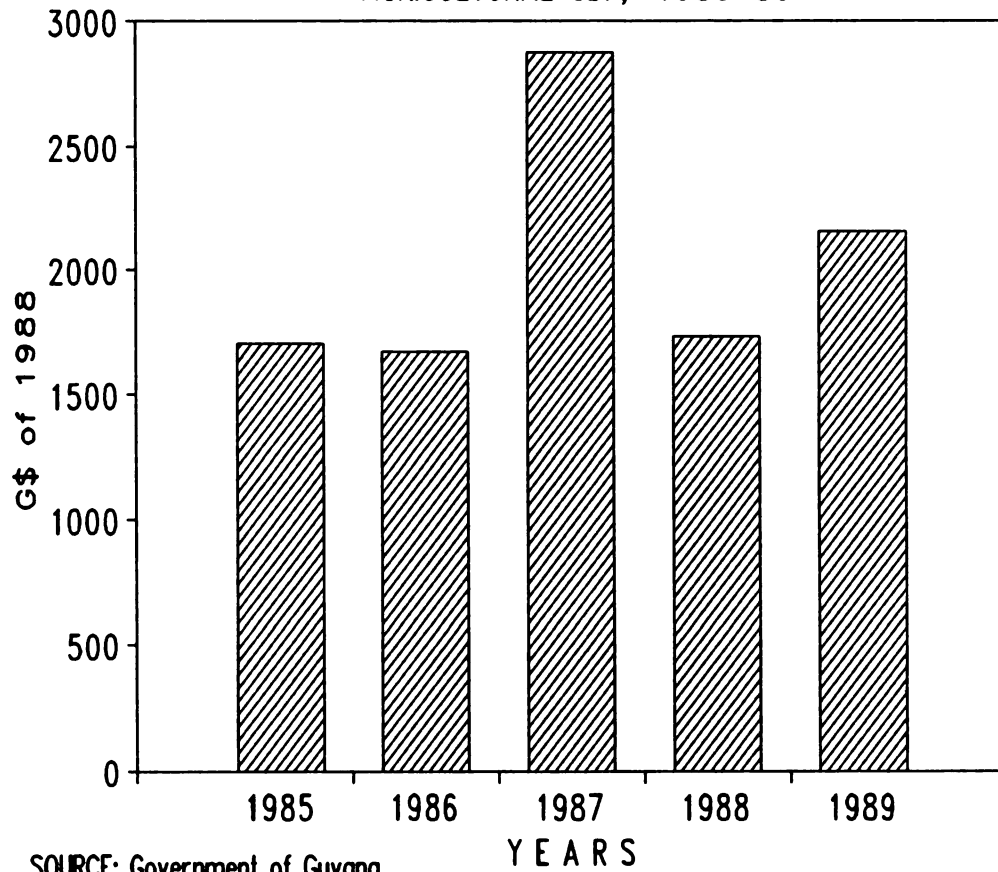
TABLE A.12
REAL PRICES OF PADDY AND RICE,
AND IMPLICIT TAXATION OF RICE PRODUCTION, 1982-88.

YEAR	PRICE		IMPLICIT TAXATION (%)
	PADDY*	RICE**	
1982	7.69 (100)	18.24 (100)	43.00
1984	6.39 (83)	15.64 (86)	36.00
1986	6.37 (83)	16.27 (89)	4.00
1988	5.84 (74)	15.59 (85)	7.00

* Price in G\$ of 1970 per bag of 140 pounds.
 ** Price in G\$ of 1970 per bag of 180 pounds.
 Note: Numbers in brackets are percentages.

SOURCE: Reza, L. G. and E. G. Maffucci, 1988.

Figure A.1
GUYANA-REAL PER CAPITA
AGRICULTURAL GDP, 1985-89



SOURCE: Government of Guyana.

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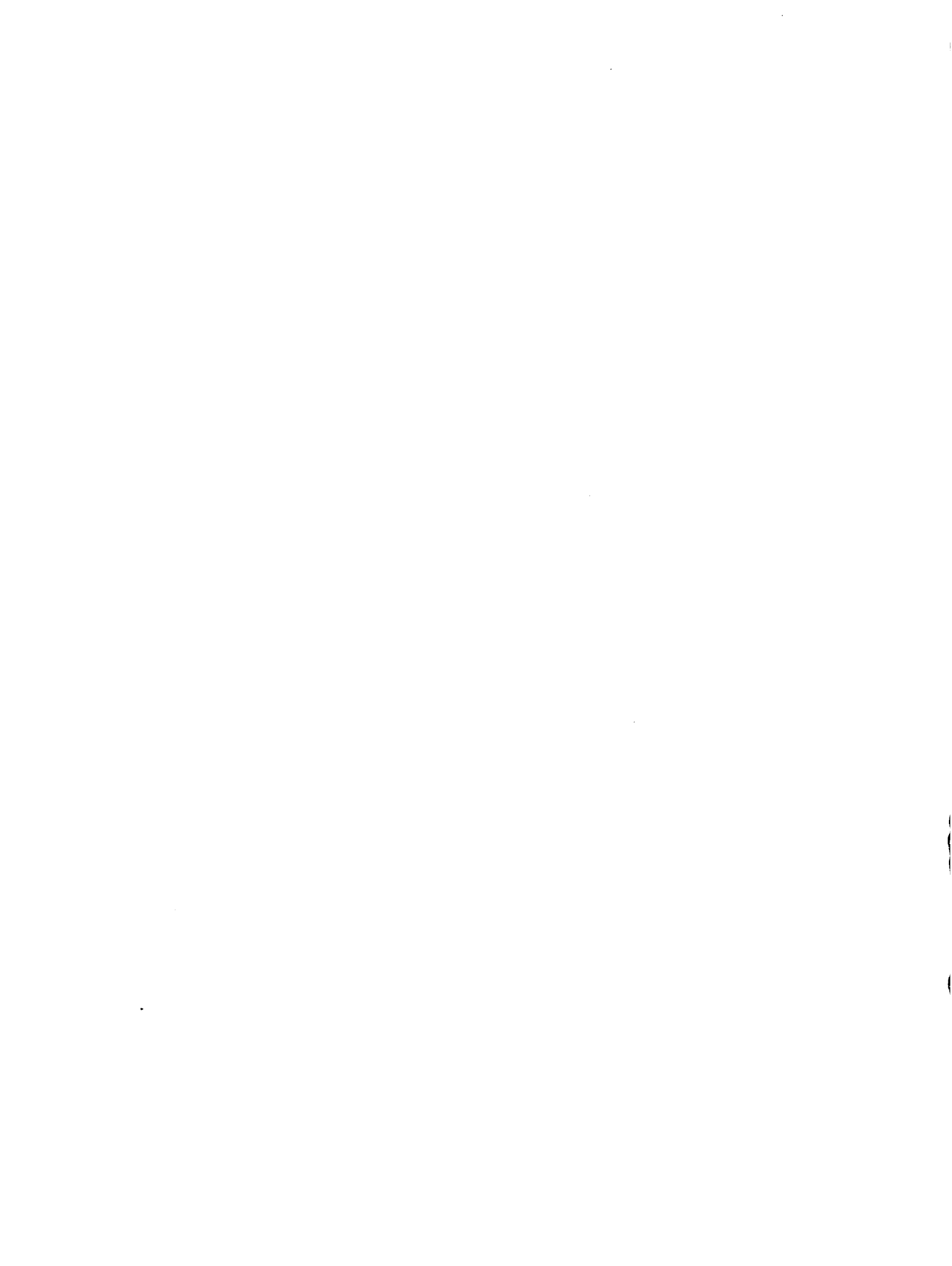
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