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Walter C. Neale
Walter C. Neale, Major Professor

We have read this dissertation
and recommend its acceptance:

W. C. Neale

Kenneth B. Kenney
Henry W. Hoogh.

Accepted for the Council:

Lowminkel
The Graduate School

THE MAHAICA-MAHAICONY-ABARY PROJECT:
SOCIOECONOMIC CHANGE IN GUYANA

A Dissertation
Presented for the
Doctor of Philosophy
Degree
The University of Tennessee, Knoxville

Maurice Reginald Hoppie

March 1985

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DEDICATION

This dissertation is dedicated to those who struggle unceasingly to reach higher plains despite pitfalls and formidable challenges.

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I convey my appreciation to those persons whose contributions led to the completion of this dissertation.

In particular, I wish to thank Dr. Robert Harvey, former Dean of Knoxville College, Knoxville, Tennessee, for his encouragement and support throughout my program of study. Dr. Walter C. Neale, my supervising professor, deserves much credit for piloting me through my coursework and for his diligent attention to my dissertation. Under him, this exercise has truly been an intellectual experience.

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M.R.H.

ABSTRACT

The Mahaica-Mahaicony-Abary Project in Guyana is about rice, in particular, and development, in general. It is situated along the coastland within Demerara and Berbice, whose alluvial-clay base is fertile and suited to wet rice cultivation, but "very unstable and extremely complex" because salinity, flooding, soil erosion, siltation and drift compound drainage problems in the project area.

Thus, with physical infrastructure--water control, drainage, irrigation, and road systems; agricultural development, especially in rice culture; land use and settlement--the project seeks to control salinity in the Mahaica, Mahaicony, and Abary Rivers, prevent flooding of the rice growing area, expand acreage, and increase production and productivity in the rice industry.

These physical works--main and secondary--have been funded by the Inter-American Development Bank (IDB) and the Government of Guyana at US\$72.6mn (G\$200mn), and US\$53.6mn (G\$160mn), respectively. The project falls within strategies for feeding, housing, and clothing the nation; import substitution; diversification of the industrial base; export promotion; and decentralization, devolution and regional development. In the latter case it seeks to increase farmers' income to a target of G\$9,000 per year, by 1989.

This is a study in Political Economy. It focuses on project behavior and/or misbehavior, tensions in project evolution, and on institutions and their relationships and impacts on development. It draws on the plantation, subsistence, and small holding traditions in Guyanese society.

The study incorporated fieldwork including interviews with farmers in the project area and with officials and staff of the principal institutions connected with the project, and on-site visits to the physical works and the Mahaicony-Abary Rice Development Scheme (MARDS); review of secondary information; and discussions with colleagues, professionals and local residents within and outside the project area.

The project's flood control objective has already been achieved. The target income objective is clearly in sight. This, however, is tied to increased production, drainage and irrigation works scheduled for completion in 1987, and the consolidation of the agricultural development program projected for 1989. The employment and settlement objectives, on the other hand, are questionable.

PREFACE

The Mahaica-Mahaicony-Abary Project is the most ambitious scheme undertaken by the People's National Congress (PNC), led by Linden Forbes Sampson Burnham, President of Guyana, since it took office in 1964. Funded by the Inter-American Development Bank and the Government of Guyana, construction of the physical infrastructure began in 1980. Originally the cost of the project was estimated at G\$200mn. Subsequently, however, cost over-runs forced the Government to truncate the secondary and tertiary works.

Considered an integrated development scheme, the MMA project has three features: (a) physical infrastructure--drainage, irrigation, and road systems--(b) agricultural development, especially in rice culture; and (c) land use and settlement. Coordinated by the Mahaica-Mahaicony-Abary Agricultural Development Authority (MMA-ADA), the project, which falls under the portfolio of the Ministry of Agriculture, is expected to bring 150,000 acres of land under rice cultivation, develop 84,000 acres for other agricultural crops such as ground provisions (tuberous roots), and up-grade 40,000 acres for pasture.

The MMA project should be viewed against the following:

1. the government's resolve to "feed, house, and clothe" the nation (a basic needs strategy);
2. the importance of the agricultural sector in national development; and

3. the government's emphasis on decentralization and regional development, which it claims is necessary for a successful transition to Socialism.

This study is not about project evaluation, which is a technical blueprint for project selection. Rather, it is a study in political economy. To this end, it examines many substantive relationships which shape the development process: it focuses on institutions and their relationships since these are critical factors in the development calculus; highlights project behavior which emanates from institutional impacts; and explores how the MMA project fits into the development scenario.

Given Guyana's social history, the study draws on three traditions--the plantation tradition, the subsistence tradition, and the small holding tradition. The study is based upon four-premises: (a) development ultimately results from what people do and how they do it, (b) the development process is, in a real sense, a sum of many projects, (c) project behavior should provide invaluable insights into the development process, and (d) government must necessarily be an indispensable element in, and a trigger mechanism for, development.

It is hoped this study will provide a deepened understanding of project evolution, and an account of how development is programmed in a Third World country which professes a Marxist/Leninist ideology.

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PART I: FOUNDATIONS AND PRE-CONDITIONS FOR DEVELOPMENT

CHAPTER 1

THE MMA PROJECT: A PREFACE

The Study

The Mahaica-Mahaicony-Abary Project is the most ambitious scheme undertaken by the People's National Congress (PNC), led by Linden Forbes Sampson Burnham, President of Guyana, since it took office in 1964. Funded by the Inter-American Development Bank and the Government of Guyana, construction of the physical infrastructure began in 1980. Originally the cost of the project was estimated at G\$200mn. Subsequently, however, cost over-runs forced the government to truncate the secondary and tertiary works.

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Given Guyana's social history, the study draws on three traditions--the plantation tradition, the subsistence tradition, and the small holding tradition. The study is based upon four-premises: (a) development ultimately results from what people do and how they do it, (b) the development process is, in a real sense, a sum of many projects, (c) project behavior should provide invaluable insights into the development process, and (d) government must necessarily be an indispensable element in, and a trigger mechanism for, development.

Albert O. Hirshman and Dennis A. Rondinelli are to be credited, in part, for my interest in project behavior. According to Hirshman, development projects are "privileged particles of the development process . . . [such that] . . . their behavior warrants watching at

close range."¹ His rationale is that "the new skills and attitudes they impart, and the internal tensions they sometimes generate . . . [formative experiences that emanate from project behavior and misbehavior] . . . have an important bearing on the next stages of a country's development effort."²

Likewise, Rondinelli holds that "few activities are more crucial to accelerating the pace of economic and social progress in poor countries than effective planning and implementation of development projects . . . [yet development literature focuses on project preparation, feasibility analysis, and appraisal, and] . . . less attention has been given to the broader political constraints on economic and technical rationality in developing nations, to their limited administrative capacities for implementing complex ventures, or to cultural conditions under which planning must be done."³

Against this backdrop, I have attempted to weave and set down in systematic form significant bits of MMA project history into observations on project behavior.⁴ I have tried to dovetail ideological, sociocultural, and political questions, organizational and administrative questions, and economic and technological questions

¹Albert O. Hirshman, Development Projects Observed (Washington, D.C.: The Brookings Institution, 1967), p. 1.

²Ibid., "Foreward," p. viii.

³Dennis A. Rondinelli, ed., Planning Development Projects (Stroudsburg, Pa.: Dowden, Hutchinson and Ross, Inc., 1977), "Preface," pp. vii-viii.

⁴Hirshman, p. 3.

in the context of micro (project) development and the larger, national development picture.

The study was undertaken during Summers, 1980 and 1983. Under the auspices of the State Planning Secretariat, it encompassed (a) fieldwork: including interviews with personnel of the State Planning Secretariat, Mahaica-Mahaicony-Abary Agricultural Development Authority, United States Agency for International Development, Guyana Rice Board, and the United Nations Development Program, with farmers in the MMA project area, and on-site visits to the physical works and to the Mahaicony-Abary Rice Development Scheme (MARDS); (b) review of secondary information: from the above institutions, and from the Ministry of Economic Development, Ministry of Information, Bank of Guyana, People's National Congress publications, newspapers, texts and journals; and (c) discussions: with colleagues, professionals, and local residents within and without the project area.

It is hoped this study will provide a deepened understanding of project evolution, and an account of how development is programmed in a Third World country which professes a Marxist/Leninist ideology.

Overview of the Project

"[A] country does not so easily escape its past"⁵ since its development is inextricably linked to its history. Guyana, a small, open and export-oriented economy, is attempting to break with its

⁵Jay R. Mandle, The Plantation Economy: Population and Economic Change in Guyana, 1830-1960 (Philadelphia: Temple University Press, 1973), p. 143.

past; to rid itself of certain economic and institutional structures that hinder socioeconomic change. The Mahaica-Mahaicony-Abary project is part of this attempt. It is intended to improve the country's condition and bring it closer to economic independence. It is about rice, in particular, and development, in general.

Phase I, scheduled initially for completion in 1983, and Phase II, to start in the same year, have encountered problems that appear to have interesting parallels in the history of Guyana's agriculture and in the emergence of the rice industry.

The MMA project is situated along the coastland within Demerara and Berbice, two of the country's three counties (shown in Figure 1-1). It stretches for 45 miles along the East Coast Demerara/West Coast Berbice administrative region, and reaches 15 miles inland. The coastal region, with alluvial clay based soil, is fertile but below sea-level. This situation, together with Guyana's other geo-physical characteristics, pose problems for rice cultivation in the MMA area.

Because the coastal region lies below sea-level, salinity from the Atlantic Ocean is pushed upstream in the Mahaica, Mahaicony, and Abary Rivers. Further, after seasonally heavy rainfalls water builds up in the savannahs in the hinterland and often floods the coastland. In addition, soil erosion, siltation and drift contribute to poor drainage of the project area. The project then seeks to control salinity in the Mahaica, Mahaicony, and Abary Rivers; prevent flooding of the rice growing area; expand acreage, and increase production and productivity in the rice industry.

To this end physical infrastructures have been constructed to collect and store waters from the hinterland in conservancies, to irrigate paddy fields by channeling water from the catchment area through irrigation systems, to drain the project area, and to flush salinity from the area's rivers into the Atlantic Ocean.

In the larger picture the following factors created conditions which ultimately influenced the decision to implement the MMA project:

(a) Guyana's institutionally rigid and monocultural plantation economy, 1838-1962; (b) Colonial and pre-independence programming during the periods 1947-56, 1954-58, and 1960-64; (c) National development or post-independence planning as articulated in the first and second Development Plans, 1966-72 and 1972-76.

Further, the MMA project is a principal component in the government's basic needs strategy of feeding, housing and clothing the nation. This strategy is interlinked with import substitution where rice and rice flour are promoted as substitutes for wheaten flour and potatoes, and with diversification of the industrial base by developing linkages between the agricultural sector and agri-related small industries.

The project, however, is more important to export promotion than to import substitution. On the whole, export receipts for the rice industry rank behind that for bauxite and sugar. Rice exports increased in value from G\$25mn in 1973 to G\$85mn in 1975, but fell to G\$73mn in 1976 because adverse weather affected the first crop of that year. Nonetheless, the project, like the agricultural sector, is

expected to generate surpluses that are earmarked for rural development.

In addition, with increased production, rice, second only to sugar as the most important crop, is expected to make greater contributions to the national economy. From 1970 to 1977, the industry's contribution to the Gross Domestic Product (GDP) grew at an annual rate of about 15 percent, increasing from G\$17mn to G\$58mn. During this period the GDP grew at approximately 8 percent per year.

The project also seeks to increase farmers' income to a target of G\$9,000 per year, to reduce the level of unemployment estimated in 1977 at 25 percent of the active labor force, to create inland settlements by shifting residential population from the coastal region [constituting 4 percent of the land but on which 96 percent of the people reside], and to give effect to the government's program of decentralization and devolution of economic power to the "little man." In this particular case, the "little man" is understood to mean the small farmer who cultivates 10 acres or less. He is supposed to benefit "immeasurably" from the project.

As in the case of development in general, tensions, embodied in project evolution, account for a significant part of project experience. The MMA project has been affected by tensions arising from decentralization and devolution, that is, between central government's interests and control and local action; from the clash between foreign and local attitudes in managing the project; from differences in political and economic philosophy between the Guyana

government and the United States government, and to a lesser extent between the Guyana government and the Inter-American Development Bank and the United States Agency for International Development; and from the project's administration and regional or local PNC party officials in their roles in developing the MMA region.

In view of the foregoing, Part I of this work addresses the bigger picture--foundations and pre-conditions that set the stage for development in Guyana. Part II focuses on the project and related tensions--on project behavior.

CHAPTER 2

SUGAR, RICE, AND THE RURAL ECONOMY: ASPECTS OF ECONOMIC HISTORY

Plantation Economy and the Evolution of the Rice Industry

The plantation economy was marked by its " . . . commercial characteristics, participation in international commodity markets, [and] relatively large scale . . . labor intensive [and] low skill methods of production."¹ Table 2-1, which outlines the production mix or cropping pattern of Guyana's [British Guiana's] economy between 1812 and 1851, reflects these features. Sugar, by 1850, had superceded coffee and cotton as the dominant crop in Guyana's emergent monocultural economy. The sugar industry's dominant position in the economy as well as its setbacks are discussed later in this chapter. At this point, however, we will note that after 1835 the monocultural sugar dominated economy emerged following (a) technological and labor market adjustments to labor shortages in the sugar industry; (b) indentureship, primarily from India; (c) Imperial Preference for colonial sugar over non-colonial sugar (protection for colonial sugar in the United Kingdom market); (d) the decline of coffee and cotton as commercial crops, in addition to favorable prices for sugar in the international market; and, as a result, (e) the transfer of labor from coffee and cotton to sugar.

¹Mandle, p. 9.

Table 2-1
Coffee, Sugar, and Cotton Output, 1812-51

Years	Coffee (lbs.)	Sugar (Cwts.)	Cotton (lbs.)
1812-15	9,178,600	270,541	8,939,045
1816-20	9,856,640	390,762	6,852,076
1821-25	7,193,100	619,040	4,755,648
1826-30	6,135,471	832,022	2,964,912
1831-35	3,769,694	848,768	1,123,978
1836-40	3,599,528	689,282	532,380
1841-45	1,337,305	483,217	33,900
1846-50	119,835	510,809	--
1851-	3,198	--	--

Source: Jay R. Mandle, The Plantation Economy: Population and Economic Change in Guyana, 1838-1960 (Philadelphia: Temple University Press, 1973), p. 18.

In addition, the productive organization of the plantation economy was reinforced by a "system of labor-force control," which in Guyana involved slavery [abolished in 1833], indentureship, and colonial land and development policies. These, one argument holds, militated against the development of a viable peasantry. The argument infers that the British government, during the 1800's, was actively involved in shaping British Guiana's (Guyana's) economy, and that it orchestrated a deliberate policy to retard the colony's development,

but it does not discuss the constitutional arrangement that structured and integrated the economy. Furthermore, it does not explain how the Crown was affected by this arrangement, and what authority it devolved on the plantocracy.

On the other hand, a counter argument holds that the politico-constitutional arrangements of the colony precluded the British government from actively participating in its internal affairs, and, further, that British Guiana gained Crown colony status [came under the full authority of the Crown] only in 1928.

The early constitutional arrangement was set out in the Articles of Capitulation, 1803, ceding possession to the British by the Dutch. Holding that

The Laws and Usages of the colony shall remain in force and be respected, the mode of taxation now in use be adhered to . . . no new establishments shall be introduced without the consent² of the Court of Policy, as the Legislature of the Colony,

the Articles of Capitulation proscribed fundamental changes in the structure of the colony. Thus "Roman-Dutch law, rather than English Common law, became the law of the land." The Roman-Dutch law and the Court of Policy (a Dutch designed institution) determined how the society should be integrated. For instance, much of the best agricultural land was not accessible to the peasants because, by law, such land was held by absentee owners or plantations under absolute ownership. This condition, then, militated against the rise of a peasantry.

²Leo A. Despres, Cultural Pluralism and Nationalist Politics in British Guiana (Chicago: Rand McNally and Co., 1967), p. 33.

In the meantime, Dutch colonial administration in Essequibo, a county of the plantation economy during the 17th century, centered around the Court of Policy and Justice whose membership, initially, was drawn from the Dutch West India Company. Later, private planters were elected to this body by the College of Keizers (electors). By 1789, Demerara, another county, came under the same administrative arrangement, so that Essequibo and Demerara were governed by a single administration over which the Dutch West India Company exercised executive and legislative power.

After British occupation of the colony in 1796, six financial representatives, elected from Essequibo (three) and Demerara (three) were added to the Court of Policy. The colony's administrative structure was then: (a) Governor, (b) Court of Policy, and (c) Financial Representatives. The Court of Policy and the Financial Representatives were called the Combined Court. The official members held a majority over their elected counterparts in the Court of Policy. In the Combined Court, however, the elected representatives held a majority. Under this arrangement, "the official majority in the Court of Policy controlled the executive and legislative powers in the colony, while the unofficial majority of the Combined Court controlled the power to raise taxes and examine public accounts."³

By vesting the Combined Court with fiscal power, the Articles of Capitulation withheld such power from the Crown. Thus the Combined Court decided "whether or not money would be raised to maintain roads,

³Ibid., pp. 35-36.

construct sea defenses, and extend drainage systems," and "determine[d] how much money would be available for public health, welfare and education." In addition, the Combined Court "controlled the power to influence, shape, or obstruct both the legislative and administrative policies of the Crown" The plantocracy, by virtue of the fiscal power vested in the Combined Court, "occupied an interventionist position from which it controlled, almost completely, the economic structure of the colony."⁴ Thus the sugar plantation owners dominated policy rather than coffee and cotton producers. It is obvious that the interests served in the colony during this period were those of the sugar plantations. It does not appear that the Crown engineered the conditions under which the plantocracy operated.

The Guyanese peasantry emerged within the plantation economy between 1838 and 1850, the period immediately after the abolition of slavery. Following a five year period of "apprenticeship"--a period of service in which the ex-slaves provided wage labor in such field work as cutting sugar cane, clearing and maintaining irrigation canals, tending mules [used in hauling the flat-bottomed sugar cane punts along the canals to and from the sugar factory], as well as manual labor in the factories--the plantation economy suffered a "labor shortage" as former slaves left the plantations. Two consequences followed: (a) the contracting of indentured workers from India, Portugal, and the West Indies; and (b) a change in the composition of agricultural output.

⁴Ibid., pp. 36-37.

Indentured workers began to arrive in Guyana about 1838 but failed to meet the demand because the British government restricted the inflow between 1838 and 1850. Adjusting to labor market conditions and benefiting from a "relatively favorable price [for sugar] in the international market," plantation owners transferred labor from cotton and coffee to sugar. In less than two decades, sugar supplanted both cotton and coffee as the primary crop.

Colonial sugar enjoyed an Imperial preference in the United Kingdom market between 1830 and 1854. By the end of this period, however, the duty on foreign sugar had been reduced to the point where the import taxes on colonial and foreign sugar were almost equal. Colonial sugar, as a result, faced increased competition in the international market. Table 2-2 sets out the advantage relative to the differential tax that colonial sugar enjoyed over foreign sugar.

The sugar industry experienced two direct impacts from lower differential duties on sugar--one on the supply side, and the other on the demand side. The impact on the supply side, due to a labor shortage in the industry and the need to induce an adequate labor supply by offering higher wages, resulted in higher input costs. That on the demand side, where the industry faced increased competition in the international market, produced lower prices.⁵ Sugar production in the plantation economy became less profitable.

⁵Peter Newman, British Guiana: Problems of Cohesion in an Immigrant Society (London and New York: Oxford University Press, 1964), p. 22.

Table 2-2

Preference Schedule
(Duties in Es/s/d per ton of sugar)

Period	Colonial	Foreign	Foreign Slave Grown
1830-40	24.0.0	63.0.0	Totally Prohibited
1840-45	25.3.6	66.2.0	<u>do</u>
1845-46	14.0.0	23.6.8	63.0.0
1846-47	14.0.0	21.0.0	Same as foreign
1847-48	14.0.0	20.0.0	<u>do</u>
1849-50	13.0.0	18.0.0	<u>do</u>
1850-51	11.0.0	15.6.0	<u>do</u>
1851-52	10.0.0	14.0.0	<u>do</u>
1852-53	10.0.0	13.0.0	<u>do</u>
1853-54	10.0.0	12.0.0	<u>do</u>

Source: Dwarka Nath, A History of Indians in British Guiana (London: Thomas Nelson and Sons, Ltd., 1950), pp. 41-42.

In this situation, indentureship was reintroduced in order to increase the labor supply and reduce input costs. Grants of land were given to indentured servants for settlement in lieu of return passages (repatriation).⁶ Here, the overwhelming concern may not have been to obstruct the rise of the peasantry. Quite likely, the intentions were

⁶Dwarka Nath, A History of Indians in British Guiana (London: Thomas Nelson and Sons, Ltd., 1950), p. 94.

to rescue the sugar industry, which, from the British perspective, was a better alternative for the colony's development than peasant agriculture.

From about 1838 to 1850, the sugar industry languished in a depressed state. Average sugar exports fell from approximately 44 thousand tons to 27 thousand tons. The population residing on the sugar estates declined by approximately 46,000 persons. This residential shift marked the emergence of the Guyanese peasantry. The rice industry which evolved thereafter thus developed as a peasant industry, and remains so still. The value of sugar estates, as indicated by the sample below, depreciated.

Year	Estate	Price	Value during Slavery (£)	Percent of Former, Value (£)
1838	Anna Catherina	30,000	50,000	60
1840	Ogle	26,000	45,000	58
1845	Baillie's Hope	7,000	50,000	14
1846	Goed Fortuin	1,700	35,000	5

The average price per estate compared to their pre-emancipation value was 52 percent in 1838 and 1840, 29 percent in 1844, 14 percent in 1845, and only 6 percent in 1846.⁷ Some members of the old plantocracy became indebted to merchant creditors and could not

⁷Ibid., pp. 42-43.

provide the necessary funds to operate their estates. At the end of the 18th century there were 380 estates. In 1829, prior to apprenticeship, 180; and by 1896, only 64.⁸

About 1851, aided by an increase in demand in the international market, the sugar industry undertook adjustments by (a) amalgamating estates, (b) improving factory machinery, (c) stressing greater efficiency in the field as well as in the factory, and (d) reducing wages. These changes seem to suggest that those who owned and operated the estates were more capitalist in outlook than the old proprietary interests.

The indentureship policy from 1850 to 1890 gave rise to a labor surplus and this, in combination with indentured workers fulfilling their contractual obligations during the period, pushed labor from the estates. Consequently East Indians and former slaves came in close proximity and competed for limited alternative employment in the villages. Suspicion, antagonism, and enmity between the two groups ensued. Racial distrust in Guyana was demonstrated in the conflicts leading up to independence. Racial enmity, which is still a problem in Guyana, strikes at the underbelly of nation-building and thwarts development. In the MMA today there are racial antagonisms over who benefits from the project. This issue, however, becomes less emotive if viewed in terms of cultural propensities and village settlement patterns (Chapter 3, pp. 51-54, and Chapter 6, pp. 105-110).

⁸Newman, p. 22.

By the 1890's, the sugar industry faced another crisis in the form of intense competition from the European beet sugar industry. For example, between 1882 and 1891, imports of beet sugar into the United Kingdom market increased from 400,000 tons to 1,000,000 tons per annum. At the same time, imports of West Indian sugar fell from 200,000 tons to 50,000 tons per annum. This development was undoubtedly in line with British free trade policy. In fact, the British position on this issue was put by its Colonial Secretary, Lord Derby, who asserted:

If Germany, Austria, and France were taxed to give the British consumer sugar at a cheap price, why complain? The natural market of the West Indies [is] America, not Europe.⁹

Competition from the European beet sugar industry led to increased labor surplus on the estates. As a result, a West Indian Royal Commission in 1897 recommended that some estates be converted to peasant holdings for the cultivation of crops other than sugar. These circumstances, then, added impetus to the rise of the peasantry, the shift of the residential population from the estates to the villages and country-side, and to the rice industry.

In 1903 the Brussels Convention abolished the assistance given to the beet sugar industry by governments. This, along with the curtailment of European sugar shipped to the United Kingdom during World War I, provided a respite for colonial sugar. With greater productive efficiency and higher prices, output increased. After the war, however, there was a glut on the world market. Between 1920 and

⁹Ibid., p. 27.

1921, the price of sugar in the United Kingdom fell from £50.1^s.0^d per ton to £18.9^s.0^d per ton.

To minimize the effect, colonial sugar was again accorded a preference of £3.15^s.0^d per ton during the early post-war years. This was followed by a supplementary preference in 1929, amounting to £1.2^s.0^d per ton for British Guiana. Thus stimulated, sugar output from the plantation economy increased from 100,429 tons in 1929 to 176,505 tons in 1936. Thereafter, sugar production in the colonies fell under the International Sugar Agreement until 1942, under which colonial sugar received an allotment of 965,254 metric tons annually. By post World War II, then, the sugar industry had recovered sufficiently to launch further efforts at expansion.

Against this background--a declining sugar industry, the rise of the African and East Indian peasantry, limited employment opportunities outside of sugar, access to cultivable land for wet rice--the rice industry, cultivated primarily by the East Indian peasantry already familiar with rice culture, emerged.

Rice cultivation benefited from two auspicious factors: (a) a favorable tropical climate, and (b) a knowledge of wet rice technology among the East Indian peasantry. Between 1898 and 1917 output increased from approximately 3,900 tons to 36,500 tons. The maximum tonnage per acre realized was .75. During this period imports of rice decreased from 14,693 tons to 72 tons while exports reached a maximum of 10,760 tons.

According to Mandle, growth in the rice industry "represented a rapid process of import-substitution." After 1920 Guyana exported much of its rice to the Caribbean countries. In due course it would rank second only to Mexico in rice production in this hemisphere. Nonetheless, the industry's ability to withstand international competition was questioned because of ". . . poor drainage and irrigation facilities, inadequate and expensive credit, poor milling facilities, and the disorganized state of export marketing."¹⁰ All but the latter charge are specific concerns of the MMA, and the rice industry generally, today.

These charges notwithstanding, restrictions imposed on shipping during WW II, and riots against socioeconomic conditions in the West Indian colonies, aided the industry in two ways: (a) in streamlining the marketing and drainage and irrigation administrations; and (b) in providing the industry with a market in which it enjoyed virtual monopoly power. Thus in 1939 the Rice Marketing Board, as the "sole exporter of rice," was authorized "to execute long term contracts with importing countries." Shortly thereafter, "all declared drainage areas in the country" were placed under the control of the newly created Drainage and Irrigation Board. In addition to these improvements, the colonial government sponsored a "Grow More Food" campaign--a precursor, perhaps, to the PNC's resolve to "Feed, House, and Clothe" the nation, with the rice industry being the chief beneficiary.

¹⁰ Despres, p. 78.

Between 1940 and 1944, grants of approximately WI\$1.5mn from the Colonial Development and Welfare Office were "to be used in improvement and purchase of mills, experiments in drying, and drainage and irrigation, and extension of cultivation." However, by 1944, much of this fund was uncommitted. As a result project implementation faltered. A score-card on this subject reads as follows:

Two major projects were envisioned during the war years: the Bonasika Irrigation Scheme to aid the agricultural lands on the West Demerara, and a project on the Courantyne River. Of these two, the Bonasika Scheme actually got under way in 1943 but was not successfully completed and was ultimately drastically revised. The Courantyne Project was not begun until after the war. Several minor projects were also begun (at Crabwood Creek, Sahar/Mahaicony, Mahaica/Clonbrook, and North Klien Ponderoyeh¹¹), but only one--the Crabwood Creek Scheme--was finished.

Aborted projects have also arrested efforts at development in the contemporary economy. Moreover, the MMA project seems to be drifting in the pattern of the Bonasika scheme. As we shall see, secondary and tertiary works originally planned for Phase I have been truncated, and Phase II is now being considered in a longer time frame.

If project performance was disappointing, what followed brought no relief to the rice industry. In 1947 the colonial government eliminated "the structure of incentives that had called forth the development of the new peasantry" in response to the "Grow More Food" campaign. The reasons for this action were that (a) the incentives were construed as a short-term measure, and (b) they were extremely expensive. Nonetheless, improved conditions must have contributed to

¹¹Ibid., pp. 114-115.

increased growth in the industry. Output, for instance, increased from 55,084 tons to 85,935 tons, and exports from 19,710 tons to 43,300 tons, from 1941 to 1960. Thus the elimination of the structure of incentives did not seem to depress the industry. Output per acre, however, declined during this period from .79 to .53 tons, indicating that the industry slid to a lower level of efficiency. This lesson has not been ignored: the rice industry and increasing yields are overriding concerns of the MMA.

Political Status and Pre-Independence Programming

Commentators¹² divide Guyana's political history into five periods.

Period 1, 1833-91

Sugar, we saw, surpassed cotton and coffee as the primary industry during this period. No part of the society escaped its pervasive influence. As a total institution, the sugar polity exerted "almost complete subjugation of the political will of the people." It was not, Mandle says, a "despotism tempered by sugar" but rather a "despotism of sugar." Conditions within the sugar polity offered no hope of economic and political reform. There was "representation

¹²See Winston King, "Planning in the New Society," Co-op Republic Guyana, 1970 (Georgetown: Guyana Lithographic Co., Ltd.), p. 41, and Kempe Hope, Development Policy in Guyana: Planning, Finance, and Administration (Boulder, Colorado: Westview Press, Inc., 1979), pp. 59-61.

without any power to alter economic forms Guyana was a subject nation both in the economic sense and in the political sense."¹³

Although the Guyanese were organized to operate under conditions favorable to the plantations' economic interest, one cannot say that the Crown was oblivious to conditions in the colony. The Crown often opposed the plantocracy because their interests were frequently in conflict. This point is underscored by the following examples:

1. Crown vs. Combined Court. Against efforts to reduce the preferential duty on sugar in the United Kingdom market, the Combined Court argued that the structure of the tariff should be maintained. However, British policy, particularly between 1846 and 1854, was geared to equalize and, thereafter, to abolish such duties.¹⁴ From April, 1848, to August, 1849, the Crown and Combined Court disputed the issue. In the interval, the Combined Court, using its fiscal leverage, pressed the Crown by refusing to enact tax ordinances--in one case for more than six weeks, and, in another, for months. The Combined Court also refused to pass the Civil List that provided funds for the Governor's personnel and for maintaining the Governor's residence. The Crown, in turn, refused to yield to such pressure and eventually the Combined Court relented.

¹³King, p. 41.

¹⁴Newman, p. 21.

While agreeing that there were problems in the sugar industry, an investigative committee of the House of Commons held that the attitude of those elected to the Combined Court was irresponsible. British opinion--expressed, for example, by the Daily News--characterized the issue as a "battle for reforms in the administration of the colonies." In like manner, the Globe concluded that the action of the Combined Court was a "hopeless endeavour to obtain a renewal of protective duties on sugar."¹⁵

2. The Crown, Colonial Administration, and Welfare. As a result of efforts to lower the differential tax on foreign sugar, foreign slave grown sugar, prohibited in the United Kingdom market from 1830 to 1845, came under the same tariff structure in 1846-47 as non-slave grown sugar. The slave-grown sugar economies, attempting to take advantage of a more competitive market, sought to promote the slave trade. In contrast to these efforts, slavery in British Guiana was abolished in 1833. The position of the British government in lowering the duty on foreign sugar could not be construed as condoning slavery in the Caribbean. In fact, Britain moved against the slave trade by rescuing 43,668 slaves from ships on the high seas. In this pursuit, the British government expended £20,000,000. The significance of such commitment is that each slave was liberated at a cost of approximately £430, while at manumission the cost of liberation was about £50.10^{s.0}d.¹⁶

¹⁵Nath, pp. 43-44.

¹⁶Ibid., p. 42.

Despite the foregoing, and its opposition in instances to the plantocracy, the British government felt that the sugar industry was very important to British Guiana's economy.

At no time was there any serious thought given to the idea that British Guiana would be better off as a country of independent peasants without a sugar plantation economy. Even the more altruistic members of the Colonial Office, who regarded themselves as agents of the welfare of freemen against the West Indian interest, could see no solution¹⁷ [other] than the active support of the sugar industry.

In addition, by calling for "the encouragement of the introduction of labourers in general [in the operations of the sugar economy], and . . . the subsistence, the moral and religious instruction, and the promotion of the well-being of liberated Africans sent to British Guiana,"¹⁸ the Crown explicitly placed its hopes for development in the plantation economy.

On the one hand, given the political and economic structure of the colony, one may argue that Guyanese were locked into a politico-economic dependency syndrome. On the other hand, British policy since 1833 was geared to advance the human condition in the colony. If, in terms of basic needs, an immediate advance was not realized, one may nonetheless point to changes in "pre-conditions" that set the stage for such improvement. In 1876, for example, a Compulsory Education Ordinance, requiring that every child attend elementary school, was passed. Equally important, this bill stipulated that it was illegal "to employ children under nine years of age or those over nine who did

¹⁷Newman, p. 24.

¹⁸Ordinances, Nos. 22 and 23, 1850, Nath, p. 46.

not hold a certificate of proficiency from an elementary school." ¹⁹
Furthermore, following increased involvement by the central government in village affairs from 1850, the local government system evolved. With the development of local government, improvements were undertaken in the areas of social services and health.

Period 2, 1891-1953

There was little departure from the economic status-quo during this period. The sugar polity regained lost ground with adjustments in the sugar industry to volatile demand and prices on the international market, and to labor scarcity and surplus. These adjustments ushered in the Guyanese peasantry and the rice industry. But, it would be incorrect to assume that the period was stagnant, for Guyanese political history, from the 1940's, was caught up in nationalism.

Earlier, recognizing that the interests of "the Colored and Negro professionals--the lawyers, doctors, teachers and newspaper editors . . . [and] the Portugese businessmen and shopkeepers . . . were not being represented in the affairs of government," constitutional reforms had been adopted in 1891 and 1901. These reforms increased the electorate although, of the adult males registered to vote, 46.1 percent were British and only 37.5 percent were East Indian, African, Portuguese, and Chinese. Constitutional reform was carried further when, in 1928, Guyana was granted crown colony status, but still the Governor was vested with veto power over the Legislative Council "in

¹⁹Despres, pp. 51-52.

the event that he deemed such action best for the colony."²⁰

Government support for the rice industry was demonstrated by the establishment of the Guyana Rice Marketing Board (1939). This institution sought to engender greater stability in the peasant economy.

As elsewhere in the world, however, national political consciousness stirred during this period as local forces began to challenge the colonial authority and to articulate the need to come to grips with the society's social condition. At the forefront of this movement was the People's Progressive Party (PPP), co-founded in 1949 by Dr. Cheddie B. Jagan (its leader) and Linden Forbes Sampson Burnham (its chairman). Jagan and Burnham welded a political force which spanned the entire Guyanese social spectrum: trade unions, the intelligentsia, "Indians and Africans, sugar workers, rice workers and city workers" The PPP called for "an end to colonialism, . . . self-government and a higher standard of living for all."²¹

But to think of the PPP as a unified national force may be misleading. The PPP evolved from a Political Action Committee which contested national elections in 1947. Of the committee's candidates, only Jagan was elected. In search of broader support, Jagan had promised Burnham the chairmanship of the PPP, and " . . . by implication that he [Burnham] would therefore be leader of the party."

²⁰Ibid., pp. 38-42.

²¹C. A. Nascimento and Reynold A. Burrowes, eds., Forbes Burnham: A Destiny to Mould (Trinidad and Jamaica: Longman Caribbean Ltd., 1970), p. xviii.

Jagan, however, reneged on this implied promise and thus precipitated a situation that " . . . was later to have disastrous repercussions on the PPP." So, from the outset, even though a party split was averted when Burnham was pressed to concede the party's leadership to Jagan, there were fundamental differences within the party.²²

Furthermore, from the beginning the PPP's platform was ambiguous. There were two principal factions within the party's leadership: those who viewed the party in terms of international Marxism/Communism and those for whom the party represented a national front. As a consequence, the "extremists [who wrested control of the party] were frequently engaged in inter-party battles against those with 'nationalistic ideals'." The rivalries and disagreements were so serious that "the National Front as an objective had ceased to exist even before the PPP officially took office [1953] . . ." and "in the very moment of its success the party had almost foundered."²³

When the PPP swept to power in 1953, winning 18 of 24 seats in the House of Assembly, Jagan became Premier and Burnham became Minister of Education. Of their political ascendancy, Winston King wrote, "even what seemed to have been political power was only the form and not the substance of such power."²⁴ That Guyana was a subject nation was again demonstrated on October 9, 1953, when the

²²Peter Simms, Trouble in Guyana: An Account of People, Personalities and Politics (London: George Allen and Unwin Ltd., 1966), pp. 109-110, 107.

²³Ibid., pp. 107-110.

²⁴King, p. 41.

British government suspended its constitution and expelled the PPP from office. Such political vicissitude had only taken six months. Sir Alfred Savage, Governor of Guyana, claimed that the PPP were communists. In line with this position, the British government's rationale was that

What emerges from British Guiana is a coherent picture of ministers largely dominated by communist ideas, who are . . . threatening the order of the colony, and undermining not only its present economic stability but also chances of building it up [T]hey are unfortunately all part of a deadly design to turn British Guiana into a totalitarian state dominated by communist ideas.²⁵

Equally important is the view that the PPP's irresponsible behavior and misrule was responsible, in large part, for the suspension of the constitution. It is claimed (a) that ministerial responsibilities were neglected, some ministers devoting more time to their constituencies--to "callers"--than to governing; (b) that some government officials had an ambivalent notion of the role of government in that they still saw themselves as the opposition; and (c) that members of the government engaged in "purposeless behavior"--for example, "they went to great length to destroy, for propaganda purposes, any trust the Governor might have given them, and then complained bitterly if he did not give them any powers they asked for."²⁶ Another perspective on the suspension of the constitution was that political leadership of both Jagan and Burnham was ineffective,

²⁵Nascimento and Burrowes, p. xix.

²⁶Simms, pp. 116, 124.

and that the British government's approach to the situation was unimaginative and ungenerous.²⁷

Although the suspension of the constitution exacerbated the differences between Jagan and Burnham and hastened the split in the PPP, the course of events resulted from "ideological and tactical" differences. Burnham claimed to represent the national movement. Jagan, in turn, believed that "the Burnham clique were prepared to deviate to the right, to sacrifice our proletarian working class internationalist outlook for narrow nationalism." In sum, the PPP, in this situation, may have "committed 'political martyrdom'."²⁸

For Guyana, the suspension of the constitution was most unfortunate in that it was in part responsible for racial tension and violence and strife between East Indians and Africans, thus dealing a heavy blow to national unity and setting back political development in the colony.

Period 3, 1953-66

Guyana reverted to crown-colony status during this period. Spanning the suspension of the constitution, the installation of an Interim Government, with an appointed Executive, and events leading up to independence, this phase of Guyanese life was turbulent and retrogressive. The rush toward political independence was heightened by political agitation and competition between Jagan and Burnham and

²⁷Newman, p. 53.

²⁸Simms, pp. 138, 125.

between Jaganites and Burnhamites. Guyana was politically polarized on the basis of race, and this condition was one of the causes of communal strife between East Indians and Blacks from 1962 to 1964.

In his analysis of the factors which ignited the conflict, Mandle writes:

. . . [it] occurred just at the beginning of the residential integration of the country's dominant Indian and African ethnic groups, a process which was the result of the displacement from the estates of the largely Indian work force and its migration to the predominantly black urban centers. Indians and Africans were placed--not for the first time--in the position of being competitors for scarce resources. But this time, in the feverish political atmosphere created by the imminence of political independence, this competition unleashed a frightful conflict.

Thus, on the eve of independence the historical experience of the plantation economy had produced in Guyana a rapidly growing and ethnically diverse population living at low levels of per capita income and with a high and growing rate of unemployment. In the absence of a dynamic movement toward development and modernization, the forces associated with this volatile combination of factors proved decisive, and the society was virtually ripped asunder.²⁹

Development and modernization during this period may have been subverted by ineffective political leadership. For example, after winning the elections in 1957, the PPP failed to "use fully even the limited powers of the 1957 constitution to press home a strong drive for economic and social development." The government, it is claimed, demonstrated "a reluctance to govern as far as they were able . . . ,"

²⁹Mandle, pp. 143-144.

allocated very little time and energy to nation-building, but instead engaged in denunciations of the colonial authority and the imperialists.³⁰

Further, the aftermath of the 1961 elections, won by the PPP, provided other examples of unaccommodating attitudes on the part of the major political parties and poor statesmanship and political leadership. The PPP, once in office, drew up an economic development plan which incorporated unpopular tax reform measures: for example, capital gains taxation. If many of the fiscal measures were quite sensible, nevertheless, the preaching of some PPP members further alienated those--the PNC, the business community, and the middle class--who opposed the development plan.

In addition, the government was also involved in a labor dispute with the trade unions, including civil servants, teachers, and lower-paid government workers, over pay and conditions of work. The confrontations culminated in February, 1962, "in a riot of arson, looting, and violence, which killed five men and injured eighty, and destroyed property worth about G\$11.5 million in the business centre of Georgetown." One commentator wrote: "It is possible, of course, that [the opposition] had not been astute enough to anticipate the probable effects of their continued disregard of public order in the previous week; in which case they were truly irresponsible. If they did anticipate such a wretched conclusion, then they were guilty of

³⁰Newman, pp. 83-85.

using illegal means to bring down a legally elected Government, which had in no sense begun to act dictatorially, whatever might be its plans for the future."³¹

In like manner, the British Guiana Independence Conference in October, 1962, broke down because "the political leaders were unable to reach agreement on several important questions;" for example, proportional representation, the voting age, and whether fresh elections should have been held before independence. This impasse was heightened when, in April, 1963, "the opposition trade unions called a general strike" that lasted 80 days, "causing serious and irrevocable loss of output over the government's labor relations Bill (which it subsequently withdrew), under which the government would have had the right to decide which union should be recognised by the employers in collective bargaining procedures."³² Yet one year later, the political leaders had still not agreed on the constitutional issue. They then asked "the British Government to settle on their authority all outstanding constitutional issues" and undertook to accept such settlement. Later, however, as leader of the PPP, Jagan repudiated the British government's decision that called for proportional representation and adult suffrage at age 21. He had argued for election by simple majority and voting at age 18.

Such turbulence occurred two decades ago. Indeed, the intervening years may have blurred the scars. Nonetheless, the experience is an

³¹Ibid., pp. 94-95.

³²Id.

element in the Guyanese psyche. In time, the memory may recede; today, however, it causes suspicion among members of both groups and may retard efforts to achieve national unity.

Period 4, 1966-77

Corresponding to the first Development Plan, this period "commenced with statements of hope and promise," but the principal indictment was that "while . . . political and constitutional advance were being carefully built, the necessary steps toward economic advance were being ignored; the problems to which the long period of colonial servitude had given birth were being aggravated."³³ It seems, therefore, that the yeomen were preoccupied with mending the political kingdom, applying less industry to economic affairs.

The pre-occupation with political and constitutional advance might have been based on the view that political sovereignty would precipitate economic development. Thus, in pursuit of the political objective, the government and political actors might have failed to understand and address economic reality. Another rationale might be that the political apparatus could not adequately deal with the range of problems which beset the economy.

The problems that challenge development and structural transformation in Guyana have been listed:

1. an economy dependent on a narrow production base for export earnings, for employment opportunities, and for taxation;

³³King, p. 42.

2. the small number of manufacturing industries;
3. an expanding population, highly literate but ill-equipped for the tasks of national development;
4. a low level of technology in the non-export sector;
5. an agricultural sector that fails to generate a surplus for development;
6. a labor force overly prone to industrial conflict;
7. an administrative structure inadequate to the task of ministering to economic growth and development; and
8. a low level of utilization of domestic resources.³⁴

Political sovereignty does not cause such problems to disappear. Rather, it is projects such as the MMA that may erase the indictment of this period and address some of the problems listed.

Period 5, 1973 to Present

This period has witnessed the PNC's consolidation of power, and a move toward racial rapprochement. The latter development began in 1975 with Jagan's pledge of "critical support" for the PNC government. It was further advanced by increasing Indian support for Burnham. Beginning with the second Development Plan, 1972-76, and under "cooperative socialism," the PNC government began to attack those problems neglected in Period 4. Again, the MMA project is one such attack from which many benefits are expected.

³⁴Ibid., p. 43.

CHAPTER 3

IDEOLOGY, HOPES, AND DREAMS

Introduction

A clear perception of the ideological underpinnings of Third World countries is a pre-condition for developing a deeper understanding of how they operate and for explaining their economic and social transformation. In Guyana's case, the operational framework and efforts leading to economic and social transformation are asserted to be "people-centered."

This notion is not far-fetched. Edgar Dunn tells us that development rests "upon changes in modes of behavior" that "generate the special problems of adaptation that confront decision makers."¹ The late E. F. Schumacher noted that "development starts with people and their education, organization, and discipline." He cautioned, further, that "without these three, all resources remain latent, untapped potential."² In this schema, social roles are acted out in an institutional setting where they are influenced and reinforced by an ideology. A society's ideology is a development tool: it is "an

¹Edgar S. Dunn, Jr., Economic and Social Development: A Process of Social Learning (Baltimore: The Johns Hopkins University Press, 1971), p. 10.

²E. F. Schumacher, Small is Beautiful: Economics as if People Mattered (New York: Harper and Row, Publishers, 1973), p. 159.

instrument of social change"³ and the "sole source of group or collective coherence."⁴

As part of the development calculus, an ideology embodies "a dynamic interplay between government, entrepreneurs (socialist or non-socialist), and people."⁵ In this connection, it is likely that Third World political leadership would find J. H. Boeke's goal achievement formula--"faith, charity and patience, angelic patience"⁶--ill-advised. Gunnar Myrdal, it seems, would also disagree with Boeke. According to Myrdal, the ideology of planning holds that

economic conditions, in particular, need not remain as they are or evolve under the influence merely of "natural forces." Instead, it is felt that these conditions and their evolution should be under State control so that the economic system can be moved in a desired direction by means of intentionally planned and rationally coordinated State policies.⁷

Behavioral change, then, expressed through a cognitive and adaptive process, must be "purposive, directed and goal-oriented."⁸

³Jean-Yves Calvez, Politics and Society in the Third World (New York: Orbis Books, 1973), p. 291.

⁴Robert A. Solo, The Positive State (Cincinnati, Ohio: South-Western Publishing Co., 1982), p. 35.

⁵Benjamin Higgins and Jean Downing Higgins, Economic Development of a Small Planet (New York: W. W. Norton and Co., 1979), p. 128.

⁶Ibid., p. 131.

⁷Gunnar Myrdal, Asian Drama: An Inquiry into the Poverty of Nations, Vol. 2 (New York: Pantheon, 1968), pp. 709-710.

⁸Dunn, pp. 110-112.

As "a projection of a system of solutions, coordinated with a value system to which a human community adheres," an ideology is "an overall scheme of conception, embracing both the goal and the means of achieving it."⁹ A society's ideology reflects its history. Besides this, it has psychological as well as sociological elements, and is deemed absolutely necessary for the development of a young nation.

Nationalism and socialism are emotive ideologies. Questions concerning colonialism and neo-colonialism, exploitation, inequality and egalitarianism, cultural perversion deriving from sociocultural dualism, and economic independence are political, social, cultural, and economic themes associated with nationalism. In many developing countries, nationalism is a prop for socialism.¹⁰

Under socialism, some developing countries seek to fashion "institutional patterns in which the control over means of production and over production itself is vested with a central authority."¹¹ Their brand of socialism, however, is greatly influenced by their domestic situations. Besides, Third World socialism seems less doctrinaire and revolutionary than its classical kin. To President Julius Nyerere of Tanzania, a typology of socialism is almost meaningless. To him, "socialism, like democracy, is an attitude of mind which sees to it that each individual is concerned for the

⁹Calvez, p. 292.

¹⁰Ibid., pp. 298-300.

¹¹Joseph A. Schumpeter, Capitalism, Socialism, and Democracy (New York: Harper and Row, Publishers, 1950), p. 167.

well-being of the others."¹² This seems to be the common element of Third World socialist ideology.

Guyana's Ideological Underpinnings

Guyana's development philosophy is expressed in the following view:

The prevalence of powerful institutional forces in the Caribbean is a reality that makes economic analysis divorced from political economy a barren exercise. For economic analysis to be relevant for policy making in the Caribbean, it must take cognizance of certain crucial political and social factors ¹³

Independence was seen as a means to change Guyanese society and revolutionize its economy. Socialism is the framework through which social and economic transformation is undertaken. By social and economic transformation, the PNC government hopes to rearrange relationships so that "the worker, the little man" will have the same "substantial and preponderant control of the economic structure which he now holds in the political structure."¹⁴ Control over the economic structure is expected to come from workers' involvement in cooperatives, "the principal instrument" for achieving socialism.

¹²Calvez, p. 309.

¹³Mahmood A. Ayub and Eric D. Craikshank, "The Political Economy of the Caribbean," Finance and Development (December 1977) 14:4:38.

¹⁴Nascimento and Burrowes, pp. 120-121, 157. Note: On February 23, 1980, the Honorable L. F. S. Burnham, formerly Prime Minister, was sworn in as President, the executive authority, of the Cooperative Republic of Guyana. The President assumed his office under the terms of the Constitution of the Cooperative Republic Act 1980, and pursuant to Chapters IX and X and Title 4, Article 177, of said Act.

In this, the worker will be strongly supported by the government, which, through public corporations and other organizational arrangements, controls 80 percent of the economic activity in the society. Critics, however, equate the government's economic role with state capitalism. If this criticism is based on facts, it exposes as an empty boast the notion that the worker will have command over the economy. Critics also deride the idea that the worker has control of the political structure. Claiming that the PNC government has been rigging elections in order to remain in office, they question its legitimacy. Against these criticisms, the PNC stands resolute. It contends that "there must be an acceptance of the historical process especially by those who call themselves socialists" for "it has fallen to the PNC to lead the revolution" ¹⁵

As the PNC sees it, the ability of society to exploit its resources, to transfer economic power to the masses, to design and develop new institutions necessitated by change, and to refashion "old institutions while putting new content into others which already exist" ¹⁶ is centrally important to the process of transformation. Given this scenario, what criteria should be used in gauging socioeconomic change in Guyana? Change, the PNC asserts, should be explained "in terms of what we [the nation] do." ¹⁷

¹⁵ Economic Liberation Through Socialism (Ruimveldt, Guyana: Guyana Printers, Ltd., 1977), p. 13.

¹⁶ Nascimento and Burrowes, p. 156.

¹⁷ Planning for a New Era (Georgetown, Guyana: The Daily Chronicle, Ltd., 1970), p. 12.

In summary, the principal points here are: (a) socialism, reflecting Guyana's peculiar circumstances, is the ideological base for socioeconomic transformation; (b) through cooperatives and the public sector, the worker will gain control over the economy; (c) institution building is critically important in development; and (d) successful transformation depends upon how well the nation supports initiatives undertaken by the government.

The major political parties, the PNC and PPP, smaller political entities such as the Working People's Alliance (WPA), and other organizations, many of which are affiliated to the PNC and PPP, profess socialism. Their prevailing philosophy is Marxism/Leninism.¹⁸ The extent to which the masses internalize this philosophy is questionable. Thus the PNC's program--Education, Organization, and Mobilization--is intended to inculcate a keener sense of Marxism/Leninism and to lay the groundwork for socioeconomic transformation. Even so, two principal factors that work against ideological awareness are an emerging vicious social circle and rising expectations in the face of slow economic growth and even stagnation. Further, the PNC claims that its program is adversely affected by the counteracting activities of its opposition and "the absence of the highest degree of political and class consciousness among sections of the working people."¹⁹

¹⁸See Iris Sukdeo, "Proletarian Internationalism: A Guyanese Perspective," Roraima (1977) 1:1:45; and Report on the Third Biennial Congress of the People's National Congress, Vol. 2, 1979, pp. 152, 157, 171.

¹⁹Ranji Chandisingh, "Education in the Revolution for Socialist

The prevailing philosophy seems to be couched in generalizations. One gets the impression that such philosophy might be applied to any country at any time. What then, are the specific things in Marxism/Leninism with which the Guyanese masses are identified? In other words, what is Guyanese nationalist ideology?

Guyanese nationalist ideology has been termed ambiguous. Its early formulation was built around anti-colonial protests in which the political leaders and major political parties were united against the imperial regime and expatriate business interests. Despite this, we learn that the "creole bourgeoisie [of Blacks] was strongly in favour of the status-quo" and that on "the non-creole side, the large, prosperous and mainly rural Indian middle classes were not in sympathy with the extremist tendencies of the Indian left, but went along with it partly because of racial affinity and Jagan's effective leadership, and partly through dislike of the [then] socially dominant and exclusive urban creole group."²⁰ Thus, although the anti-imperialist ideology might have been strong among certain political and other groups, the "anti-colonial forces, coalition of Creoles, and East Indians, Marxist and non-Marxist, . . . was fragile, artificial and instrumental ab initio" ²¹

Guyanese nationalist ideology found expression in a movement committed to gaining independence from the British. This independence

Transformation and Development," Ibid., p. 160.

²⁰ Newman, British Guiana: Problems of Cohesion in an Immigrant Society, pp. 77-78.

²¹ Despres, p. xiii.

movement mobilized the masses but its references to Marxism/Leninism were rooted in "a universalistic vision." Accordingly, one commentator reasoned that the socialist rhetoric was, in large part, for external consumption. There was no unique Guyanese pattern or structure, nor any application to Guyana's reality.²²

Yet in domestic or even external political relationships, and as a means for economic advance, "it is not possible to ignore the practical implications of ideological commitments."²³ Closely related to this position is the possibility that the political leadership may profess an ideological commitment which is far removed from its goals. The questions are then: How effective might this ambiguous ideological approach be? And to what extent might Guyanese rally behind it in the cause of development, especially since publicly proclaimed ideological goals may be (and often are) superficial and misleading?²⁴

Since 1970 Guyanese nationalist ideology has been expressed as cooperative socialism. This philosophy claims as its objective the devolution of economic and political power on the Guyanese people. However, one view is that "the cooperative movement is an institutionalized broker mechanism" which tends "to be organized and centrally controlled by an agency of the government."²⁵ Thus this

²²Newman, p. 84.

²³Id.

²⁴Despres, p. xiv.

²⁵Ibid., pp. 158-160.

mechanism seems to belie the objective enuciated. Furthermore, cooperative socialism is questioned because it failed "to make local government a viable vehicle for achieving community development"²⁶ and because development planners have had difficulty in operationalizing its ideals.

The political commitment to transform the society is well articulated. However, the national will, that amalgam of what individuals believe and do, is questionable. Self-interest combined with economic hardship may lead individuals to pose the question, "Socialism at what personal price?" While economic deprivation may arouse workers' interest in socialism, it may also fuel individual self-interest and set in motion forces that run counter to Marxist/Leninist ideology.

Given this situation, the pace in "changing relations and relationships between property and people, between people and people, and between class and class"²⁷ will be slow. And why is this so?

²⁶Guy Standing and Richard Szal, Poverty and Basic Needs: Evidence from Guyana and the Philippines (Geneva: International Labour Office, 1979), p. 25.

²⁷Towards the Socialist Revolution [Address by L. F. S. Burnham, Leader of the People's National Congress, Prime Minister of Guyana, at The Second Biennial Congress of the People's National Congress, Pln. Sophia, Georgetown.] (Ruimveldt, Georgetown: Guyana Printers, Ltd., 1975), p. 16. Note: Commenting on this point, and critical of his opposition, L. F. S. Burnham says: Some of them tend to behave as if contrary to the history and experience of established socialist states, there is no need for a transition period between capitalism and socialism. They would nationalize everything and every person yesterday, they would fly in the face of facts and history Transition period there must be, except in the mind of the wishful thinkers who would not, or cannot, analyse the objective facts and situation. (Ibid., pp. 14-16).

Because, as the PNC admits, "old attitudes, even among the working class, [have] to be overcome . . . new institutions [must] be established in the light of need and experience, and . . . new skills [have] to be taught."²⁸ Hence, the length of the transition will depend on (a) how entrenched the former socioeconomic structure is in the society, and (b) the difficulty the government experiences in transforming the economy.

Ideas of Animation and the Vanguard Party

The PNC views the ideological struggle as "a battle for the minds of people"²⁹ In this quest for people's minds, the PNC seems to have taken its cue from V. I. Lenin, who advised that "to bring political knowledge to the workers [the party] must go among all classes of the population, [and] must dispatch units of their army in all directions."³⁰ The PNC, claiming that it is the vanguard party, envisions itself locked in the struggle for social and economic transformation in Guyana. The party leadership, for example, urges its members to be alert on all fronts, and frequently reminds them that they are at war with counter-revolutionary forces. The membership is exhorted to cultivate individual political consciousness that is intended to replace "a vague revolutionary state of mind" and to become actively involved in the process of change.

²⁸Ibid., pp. 16-17.

²⁹Third Biennial Congress, p. 171.

³⁰V. I. Lenin, What is to be Done? (Peking: Foreign Language Press, 1975), p. 98.

According to Jean-Yves Calvez, education is "infinitely more decisive in producing a change of mentality than any modification of laws on land or family."³¹ In this respect, the PNC embarked on a program of political and ideological education which involved the Kuru-Kuru Cooperative College, established in 1973 to offer instruction in cooperative education, and the Cuffy Ideological Institute, established in 1977. The latter, in addition to group-study, teach-ins, and seminars, is expected to promote political and ideological consciousness.

Again, Calvez argues that political and ideological education calls for indirect intervention in the affairs of the society and its institutions. In this regard, the vanguard party is expected to be vigorous, especially on three fronts: (a) organizing, mobilizing, and educating; (b) as a watch-dog, monitoring government's activities, including those of the civil service, and (c) operating against anti-party and anti-government forces. To facilitate these operations, the PNC in 1974 underwent a structural reorganization that it claimed would ensure "more direct and informed involvement of rank and file members and district leaders."³² As a result of this reorganization, the Ministry of National Development now falls within the party structure, and is integrated with the party Secretariat. Figure 3-1 sketches the organizational structure of the PNC.

³¹Calvez, p. 279.

³²P. A. Reid, "Organization for Socialist Development," December 1974, p. 4.

Congress
General Council
Central Executive
Administrative Committee
Secretariat
Regions
Districts
Groups

Figure 3-1. PNC's Organizational Structure.

Source: P. A. Reid, "Organization for Socialist Development", p. 6.

Congress, convened biennially, is the supreme authority of the party, while the General Council governs between congresses. The organizational cog is the Secretariat, the party's executive agency, which consists of the office of the General Secretary and the following departments: (a) Administration; (b) Finance; (c) Regional Affairs and Public Welfare; (d) Political, Youth and Cultural Affairs; (e) Foreign and Economic Affairs; and (f) Planning and Research. The divisions within the fourth department were merged in December, 1978. The Secretariat is supervised by the Administrative Committee; its departments are administered by Executive Secretaries who hold the rank of Ministers of State. These officials also assist the General Secretary in managing and implementing the party's policy. The responsibility for each region devolves on a Regional Chairman who is appointed by the Central Executive and assisted by a Regional Supervisor. Districts are managed by District Coordinators while Groups, "focal points of the party's activities," are guided by their chairmen.

In addition to the formal party organization, mobilization efforts are also undertaken by the Young Socialist Movement (YSM), the party's youth arm and the Women's Revolutionary Socialist Movement (WRSM), as well as affiliated organizations such as the trade unions and cooperatives. Another form of mobilization is the People's Congress--a massing of thousands of Guyanese from different geographic areas to discuss subjects of national importance under the PNC's sponsorship.

Like the government, the party also hopes to be seen as a trigger mechanism for development. Whereas the government is a catalyst for new and expanding economic activity by virtue of its development programs, the party seeks to provide the political and ideological software to sustain the development thrust. Further, through its programs for political and ideological education, the party hopes to develop in Guyana "a sense of common destiny and mutual obligations."³³ This is the task which the vanguard party has set itself.

National Unity and Nation Building

Calvez's statement that "states [are] being born while the nation is still unborn" points to a crucial problem with nation building. It is, perhaps, in recognition of this problem that the PNC speaks of "the need to ensure cohesion and unity between the various ethnic, religious, social and economic groups"³⁴ in the society. But for the PNC, forging national unity is a formidable task. L. F. S. Burnham seems to have made this point when he claimed that "it is noteworthy that over the last fifteen years, whenever the People's National Congress has taken the country into a new constitutional, ideological or economic plateau, there have been the most obtuse, vulgar, and raucous criticism and objections." Yet, in the same context, Burnham

³³Calvez, p. 56.

³⁴Sessional Paper No. 3/1973, "National Service for the Cooperative Republic of Guyana" (Third Parliament of Guyana), by L. F. S. Burnham, December 20, 1973, p. 5.

gives mixed signals. He stressed, "When will they ever learn? When will they ever learn that the People's National Congress acts always against the background of overwhelming popular understanding and support after a period of careful education? When will they ever learn that our record induced trust on the part of the masses . . . ?"³⁵ Overwhelming popular understanding and support, in addition to the trusting masses, connote a high degree of unity, but this impression does not correspond with "obtuse, vulgar, and raucous criticism and objections."

National Unity and Nation Building suggest the need for accomodation among the political forces in the body politic and among ethnic and culturally diverse members of the society. In this endeavor, the PNC's program of education, organization, and mobilization may be instrumental. Yet this program may not be successful. Clive Thomas put the issue this way:

. . . it was only recently that socialism became ideologically respectable. This means, to put the best interpretation on it, that the development of a class perspective among the cadres of the ruling party has had no time to mature. The problem we are faced with is whether it is possible for a ruling party to build socialism without socialist cadres well versed in the principles of scientific socialism in both the party and state apparatus.³⁶

Thomas further cautions that "culture and national consciousness, rather than becoming instruments of liberation, often in fact become the ideological forms under which domination and exploitation exists."

³⁵ L. F. S. Burnham, "A Giant Step Towards Progress" (Guyana: Ministry of Information, 1980), p. 7.

³⁶ Clive Y. Thomas, "Bread and Justice: The Struggle for Socialism in Guyana," Monthly Review, September 1976, pp. 28-29.

He advised too that "non-capitalist development can mask--and frequently has masked--anti-national and anti-democratic"³⁷ activities under the guise of pursuing national interests.

Nation building must incorporate political democracy. As one of its objectives, it must seek structural coherence: that is, "integration between the various constituent elements of" the society.³⁸ But the realization of structural coherence presupposes two conditions: (a) a mechanism which ensures "the representation of . . . opposing groups and does justice to their divergent interests and opinions," and (b) "a limiting national framework within which all decisions are possible and outside of which there is no likelihood of national integration or cooperation between groups."³⁹

Now, the PNC might possibly argue that the latter condition already exists within its ideological and structural compass, but it holds that cooperation and unity must be based on principle and ideology. Accordingly, the PNC is "prepared to welcome the converted and hitherto misguided, not the unrepentant purveyors of self-serving analysis and falsehoods."⁴⁰ This harsh rhetoric, further underscored by the position that "he who is not for us is against us,"⁴¹ seems to rule out any accommodation outside the PNC's dogma. Furthermore, it

³⁷Ibid., p. 28.

³⁸Calvez, p. 125.

³⁹Ibid., p. 105.

⁴⁰Towards the Socialist Revolution, p. 7.

⁴¹Chandisingh, p. 166.

does not encourage the first condition for structural coherence, which, to repeat, is a mechanism which ensures "the representation of opposing groups and does justice to their divergent interests and opinions."

Cooperatives

On February 23, 1970, Guyana became a Cooperative Republic in which cooperatives are expected to "become the basic structure for the organisation of the nation's [economic] life."⁴² The concept of "cooperativism" or "cooperative socialism" means

A system of partnership among consumers, producers, and the State. [Further], it is a system within which the effective ownership of the principal economic means of production is vested as a right in the collectivity of consumers and in which those means of production are managed by direct and indirect representatives of consumers and producers in association with the State.⁴³

Considered more radical than State socialism ("which goes no further than to transfer undertakings previously owned by private persons to ownership and control by public authorities"), cooperative socialism "rests on the principle of the subordination of production to consumption and its organisation by the consumer [C]onsumers' control and their need is the motive of economic activity [and] the consumer acquires effective ownership of all the means of production, the products of which he purchases."⁴⁴

⁴²"The Cooperative Republic" (Ministry of Information: Guyana Lithographic Co., Ltd. [n.d.]), p. 7.

⁴³Hope, p. 79.

⁴⁴Id.

Cooperativism, it is said, fits well with the "historical and psychological makeup of Guyana." The Amerindians--the indigenous people of Guyana--the freed slaves, and the East Indians practiced cooperativism as a way of life. Their descendants continue this practice as they express self-reliance and help in various activities (e.g., housing). Cooperativism in Guyana is expected to bring about a redistribution of economic power among the people, and to engender the spread of democracy by ensuring greater involvement in the economic sphere of life.

If economic democracy is to be realized, then "the cooperative movement should become the main sector of the nation's economic life" ⁴⁵ It must, it is hoped, pervade the economy. It must operate in the productive and manufacturing fields as well as in the consumer fields, and its structure must be organized so as to encompass vertical and horizontal integration. Further, it must mobilize financial and human resources, particularly the unemployed, for production. ⁴⁶

Among the institutions developed to aid the cooperative movement in engineering development is the Kuru Kuru Cooperative College, founded in 1973 (mentioned under "Ideas of Animation and the Vanguard Party" above), whose task is to provide "the means through which the nation can be properly educated at the highest level, in the philosophy and practice of cooperativism, as well as in the skills

⁴⁵"The Cooperative Republic," p. 12.

⁴⁶Ibid., pp. 13-16.

necessary to manage and operate cooperatives successfully."⁴⁷ The Guyana Cooperative Agricultural and Industrial Development Bank, formerly the Guyana Agricultural Development Bank, established in 1973 and renamed in 1978, provides funds for development in agriculture, fisheries and forestry and is charged "to assist generally in the development of the cooperative movement in so far as it relates to the development of agriculture and industry."⁴⁸ The Guyana National Cooperative Bank, Guyana's first indigenous commercial bank, set up by the Guyana National Cooperative Bank Act 1970, and the Guyana Cooperative Mortgage Finance Bank, established May 26, 1973, "encourage and promote ownership of homes for their own occupancy; finance low-cost house purchase and guarantee mortgages by other persons."⁴⁹

One may ask, "What contributions has the cooperative movement made to development since 1970? And how has it served democracy?" Two positions on this question are set out hereunder.

Cooperativism and Development: The More Optimistic View

The cooperative order, it is claimed, "has resulted in certain direct advantages and will continue to do so as long as the movement

⁴⁷Guyana in Brief (Ruimveldt, Georgetown: Guyana National Lithographic Co., Ltd., 1979), p. 49.

⁴⁸Guyana Cooperative Agricultural and Industrial Development Bank, Annual Report, 1978 (Georgetown: Guyana Cooperative Insurance Service), p. 5.

⁴⁹Guyana in Brief, p. 47.

retains its current direction and purpose."⁵⁰ In support of this view, it is pointed out that

1. cooperative societies recorded spectacular growth from 544 in 1964 to 2,025 in 1979;
2. their membership increased from 40,682 to 82,799;
3. their share capital increased from G\$2.3mn to an estimated G\$19mn over the same period.

In addition, excluding funds provided by the government, which professes a commitment to give them preference wherever and whenever feasible and profitable, cooperative societies spent approximately G\$75.5mn during 1972-76.

Moreover, the Guyana National Cooperative Bank, whose shareholders are the government, cooperative societies, friendly societies, and trade unions, mobilizes savings domestically and abroad, and thus "functions as one of the instruments of national growth and development."⁵¹ In addition, the Guyana Agricultural Cooperative Bank had issued agricultural credits of G\$1.5mn to cooperative societies by December, 1977. Meanwhile, the Guyana Cooperative Mortgage Finance Bank issued mortgage loans of G\$4.05mn at relatively low interest rates for low cost homes to individuals and cooperative societies, by the same date.

By acquiring and developing land, constructing single-dwelling units, and erecting multiple dwelling units for rental to members,

⁵⁰Hope, p. 79.

⁵¹Guyana in Brief, p. 48.

housing cooperatives "have contributed more to the F.C.H. [Feed, Clothe, and House] Programme than any other type of Cooperative Society."⁵² Housing and rental societies have increased from 3 in 1966 to 55 in 1976, constructing approximately 5,000 housing units for about 25,000 persons.

By increased involvement of institutions such as the trade unions in various levels of economic activity and decision-making, the process of decentralization and economic democracy is enhanced. In this view of the situation the individual enjoys a worker/partner status whereby he develops a more positive approach towards work. This condition, it is argued, promotes maximum social satisfaction and consequently creates an environment in which maximum output can be realized and an "optimal structure of the economy" emerges.⁵³

Cooperativism and Development: The Less Optimistic View

Cooperatives have not thus far assumed a dominant role in the economy. As a result, "partly by design and partly because it was felt that there were limited alternatives this has meant a heavy emphasis on centralised political and economic control."⁵⁴ But if cooperativism is to be successfully implemented there must be (a) widespread commitment to national development, and (b) decentralization of political and economic control (i.e., local autonomy).

⁵²Ibid.

⁵³Hope, pp. 80-81.

⁵⁴Standing and Szal, p. 23.

In this respect, the 1972-76 Development Plan failed in that "it made no provision for incorporating workers into the economic and social decision-making processes." Accordingly, the growth of local autonomy and self-reliance was hindered "by the problems of operationalizing the cooperative ideals" and "by the failure to make local government a viable vehicle for achieving community development, both before and after reforms introduced in 1970, which still left local authorities with an extremely restricted set of responsibilities" ⁵⁵

If economic participation is defined in terms of basic needs-- "the provision of adequate work opportunities, the provision of conditions of security and protection"--then the cooperatives should be assessed in terms of "their ability to contribute to the community's basic needs." They should produce "basic goods and services and be a means of achieving a democratic and egalitarian distribution of those goods and services." Likewise, "they have to fulfill the major political and economic role assigned to them, that of creating a socialist economy." In all of this, there are two primary issues: (a) does cooperativism foster cooperative socialism or cooperative capitalism? And (b) have cooperatives "contributed substantially to the improvement of living standards" in the society? ⁵⁶

⁵⁵Ibid., pp. 24-25.

⁵⁶Ibid., pp. 62, 70.

Although some cooperatives undertake more comprehensive economic activities, most operate in one area such as pig farming, cane cutting, saving, or credit provision. They are generally involved in production or distribution processes. "Many cooperatives have developed to serve only the interests of a small group of members and have been cooperatives in little more than name. Many are extremely small and have 'dormant' members who have voting rights but whose membership has been primarily for the purpose of allowing a private firm to formally call itself a cooperative and thus obtain credit and business advantages."⁵⁷

The feeling is that "the productive contribution of cooperatives has been limited." Three reasons have been advanced to support this view.

1. The largest category of cooperatives are the Savings and Thrift Societies. As mobilizers of savings, these have only "an indirect productive role."

2. Cooperatives have generally been "small groupings of private individuals working on an individual basis "

3. "Most cooperatives have been formed on a narrow functional basis which has limited the horizontal and vertical linkages in production and distribution which are essential to the development of cooperativism."

⁵⁷This, and the quotations which follow, are taken from Standing and Szal, pp. 71-76.

We are told that "there are several features of the cooperative sector that are incompatible with the development of a socialist and egalitarian system of production and distribution." What are these?

1. Many cooperatives are capitalistic rather than cooperative operations. They register as cooperatives to gain cheaper credit or to obtain a government contract.

2. Some cooperatives, investment ventures by small groups of individuals, have "little direct interest in the development of self-reliant communities: [for example] a group of urban-based civil servants formed a land cooperative to acquire and farm land in a rural area on an absentee basis, a 'cooperative' activity scarcely conducive to high productivity farming or the growth of linkages which seem imperative if cooperatives are to evolve into integrated socialist communities."

3. Many cooperatives are forced to compete with capitalist enterprises and thus are forced "to adopt criteria of profit making while being somewhat at a disadvantage with private enterprises."

In line with the third point above, "even the specially designed Guyana National Cooperative Bank (GNCB) has tended to be a vehicle by which funds have been channeled to small and large-scale capitalist concerns as much as, if not more than, to genuine worker cooperatives." By December 1976, the GNCB controlled approximately 30 percent of total bank assets in the society, yet it is argued that it "has done little to directly stimulate the expansion of cooperatives." It has provided them little in the way of support services, and "may

be a cooperative bank in the making but it [had] not been one to date [1979]."

And finally, we are advised that "partial cooperatives are a license to the economically efficient to exploit the relatively inefficient, so reproducing the inequality cooperativism is supposed to overcome."

CHAPTER 4

PLANNING AND PROGRAMMING SINCE WORLD WAR II

Pre-Independence Programming, 1947-64

Introduction

The preoccupation with development in the agricultural sector, and rice in particular, may be reviewed in terms of development expenditure during this period. An examination of the expenditure suggests that the MMA project is an outcome of a development philosophy common to pre- and post-independence Guyana, as well as of development programming in that society.

Pre-Independence Programming: 1947-56

The Ten-Year Development Plan for 1947-56 projected development expenditure amounting to G\$28mn. Proposed development fell within three broad categories: (a) drainage and irrigation, three major projects totaling G\$6.5mn; (b) social welfare, justice, and public building, at G\$11.2 mn; and (c) economic services, including agriculture, forestry, transport surveys, and research, at G\$10.3mn.¹ Of the total planned expenditure, G\$20mn was allocated for the first five years of the plan. However, actual expenditure for 1947-50 was just G\$2mn. Given this situation, an economic mission from the International Bank for Reconstruction and Development undertook a

¹Hope, p. 99, and Carleen O'Loughlin, "The Economy of British Guiana, 1952-56," Social and Economic Studies (March 1959) 8:1:79.

survey of the economy and recommended a five year development program, 1954-58, with the following characteristics:²

Principal Aims. (a) to make sectoral improvements in order "to provide better balances in the economy." (b) to promote further progress within the strong sectors of the economy; (c) to undertake technical research in agriculture and related fields (as a pre-condition for developing the country's resources); and (d) to stimulate domestic savings and investment, private and public.

Main Objectives. (a) to increase national income by 20 percent; (b) to increase income per head by 6 percent; and (c) to generate gross investment equalling 24 percent of national income.

Development Expenditure. These aims and objectives were to be achieved with the expenditures shown in Table 4-1. The development thrust during 1947-56 and 1954-58 centered on "the expansion and improvement of the coastal land" with benefits accruing primarily to the rice economy. In fact, of the total agricultural expenditure, 80 percent benefited the rice industry primarily, and of expenditure for non-agricultural schemes, (e.g. roads, housing credits, etc.), 40 percent benefited the rice industry also.³

Furthermore, one position held that the percent of development expenditure allocated to the "monoproduct [rice] economy . . . may have precluded investment in diversification which would have provided

²Hope, p. 100, and O'Loughlin, p. 80.

³O'Loughlin, p. 81.

Table 4-1

Development Expenditures: IBRD Proposals

Categories	G\$mn	Percent
1. Total development expenditure:	66	
2. Major expenditure categories:		
Total agricultural expenditure, among	24.5	37.0
a. Drainage and irrigation projects	10.7	
b. Land Settlement	1.2	
c. Rice development corporation	5.0	
d. Other agricultural projects	1.1	
e. Research and surveys	2.3	
f. Agricultural credits	4.2	
3. Transport and communication	22.3	33.8
4. Forestry	2.3	3.5
5. Social Welfare	7.5	11.3
6. Public Works (including sea defense)	5.5	8.3
7. Industrial Credits	1.5	2.3
8. Hydro-electric Power	1.4	2.3
9. Surveys	.4	.6
10. Credit Cooperation	.6	.9

Source: Abstracted from Kempe Hope, Development Policy in Guyana: Planning, Finance, and Administration (Boulder, Colorado: Westview Press, Inc., 1979), pp. 100-103.

a better balance in the economy."⁴ The strategy of focusing development on the rice economy may have been at odds with at least the principal aim of diversification, and implies criticism of the later development plan of 1960-64, which emphasized coastal development and especially rice. It was criticized for seeking "short run palliatives for rice farming" which would "solve neither the income problem nor the unemployment and underemployment problem" in the economy.⁵

Moreover, it was held that the investment in rice would increase national income in 1960 by about 1.3 percent only. This increase would constitute all payments to factor inputs--land, labor, capital--and accordingly the return was considered ". . .extremely low . . . for the capital outlay." Carleen O'Loughlin suggested looking "for social rather than economic reasons in the emphasis on expanding rice lands for underemployed labor, . . . [because] it is evident that this type of farming is unlikely to bring about that kind of income growth which is the object of economic development, [so that the program] must be regarded as much as a social relief measure as an economic development measure."⁶

⁴Ibid., p. 80.

⁵Peter Newman, "The Economic Future of British Guiana," Social and Economic Studies (1960) 9:3:271-273.

⁶O'Loughlin, pp. 82-83.

Pre-Independence Programming: 1960-64

The development program of 1960-64 stressed the maintenance of a high level of employment that would be realized with increased investment in the rice industry. It proposed minimum investment expenditure of G\$110mn, most of which (G\$92mn) was allocated to the following major expenditure categories:⁷

	<u>G\$mn</u>	<u>Percent of Proposed Minimum Investment</u>
1. Agriculture (including sea defenses, drainage and irrigation, and land development)	49.0	44.5
2. Transportation and communication	25.0	22.7
3. Agricultural and industrial credits	11.0	10

Items 1, 2, and 3 above accounted for 77.2 percent of the proposed minimum investment expenditure. Actual expenditure, however, was G\$78mn (74 percent of expenditure for 1954). The difference between planned and actual expenditure was due primarily to the failure of the government to raise the appropriate amount of foreign capital. The major categories of actual expenditure, 1960-64, were:

⁷Hope, pp. 105-110.

	<u>G\$mn</u>	<u>Percent of Actual Expenditure</u>
1a. Drainage and irrigation	23.6	30.3
b. Land development	1.9	2.4
c. Sea defenses	7.6	9.7
Sub-total	33.1	42.4
2. Transportation and communication	8.1	10.4
3. Agricultural and industrial credits	5.3	6.8

Other expenditures, including forest, lands and mines, roads, public buildings, education, health, housing, power, water, and so forth, amounted to G\$31.5mn (40.4 percent of actual expenditure).

The plan's emphasis, underscored by allocated or actual expenditure, has been criticized as "ill conceived" because it sought short run palliatives. Its emphasis on the rice industry would not, according to this contention, have significantly reduced the high level of unemployment: 17 percent of the expected labor force would have remained unemployed by 1964. Similarly, average family income was not expected to increase substantially. A six acre farm yielded about G\$350 to G\$420. A better strategy, it was argued, would have been (a) to emphasize a high growth rate in the long run; and (b) to reduce dependency on a few staples, particularly on rice. This strategy called for a focus on "heavy industry (using natural

endowment) in, for example, wood and mineral manufactures, backed up by an efficient export agriculture and light industry."⁸

Two points concerning this alternative strategy should be made. First, one counter-argument holds that, given the structure of production, social attitudes, and the inclination to control the means of production, the focus on heavy industry might have been inappropriate at that time. Second, the alternative strategy would have entailed a larger development program for which funds were not clearly in sight. The argument was that it would not have been feasible to raise funds by increasing taxes, nor could sufficient capital be obtained externally at a relatively cheap cost. The point is that Guyana could not afford such a program at that time.⁹

National Development: Post-Independence Planning

The 1966-72 development plan stressed three primary objectives: (a) to increase real income and raise the standard of living in the society, (b) to reduce the level of unemployment, and (c) to build and improve the economy's infrastructure. Proposed expenditure was G\$294.25mn, or an average yearly expenditure of approximately G\$42mn. The principal expenditure categories are shown in Table 4-2. Funding was expected from two sources: (a) internal borrowing, amounting to G\$50mn; and (b) external grants, soft loans, and hard loans amounting to G\$245mn.

⁸Newman, p. 278.

⁹Kenneth Berrill, "Comments on Newman's Article," Social and Economic Studies (March 1961) 10:1:2-3.

Table 4-2

Development Expenditures: Proposals for 1966-72

Categories	G\$mn	Percent of Proposed Expenditure
Sea defense	14	5
Agriculture, of which	59	20
Drainage and irrigation	40	
Land development	3	
Agricultural direct	10	
Transportation, of which	65	22
Roads	38	
Housing, urban, and rural development	25	9
Health, sanitation, and water supply	20	7

Source: Abstracted from Kempe Hope, Development Policy in Guyana: Planning, Finance, and Administration (Boulder, Colorado: Westview Press, Inc., 1979), pp. 111-113.

A commendable feature of the 1966-72 plan was that it encompassed a broader vision than had previous plans. It emphasized the "diversification of agricultural output, the promotion of industry, and the carrying out of basic mineral and forest surveys" Yet the sectoral allocation followed the same pattern as had the previous plans, so that the plan drew much criticism.¹⁰

First, the objectives have been termed ambiguous, especially with respect to an order of priority. For example, the plan does not properly spell out whether income generation, employment creation, or diversification should have top or equal priority. Such ambiguity confuses the direction along which development should be guided. Second, the plan's expenditure and infrastructural program was labeled "overambitious," in that the economy lacked the capacity to accomodate such expenditure, as evidenced by the gap between the 1960-64 planned expenditure of G\$110mn and the actual expenditure of G\$78mn. Third, the plan was seen as a "public sector plan." So, although the government indicated how it intended to allocate funds to the sectoral programs, it failed to discuss the role of the private sector. Instead, it left the impression that this sector was "expected to contribute in some undefined measure to the country's development."¹¹ Beyond this, the public sector was a small part of the national economy. Thus, there was a further question concerning

¹⁰Hope, p. 114, and Havelock Brewster, "Planning and Economic Development in Guyana," New World Fortnightly, No. 41, (Georgetown: Guyana), June 13, 1966, pp. 209-210.

¹¹Brewster, p. 209.

the speed and volume of development which this sector could have undertaken. Fourth, the sectoral programs were considered ". . . a diverse, incongruous collection of projects."¹²

What was the plan's fate? "The illogical structure of the plan, its ambiguity in terms of stated objectives, and, to a certain extent, the existence of a new concept of development based on cooperativism, influenced the Guyana Government to abandon [it] during the 1970-71 period"¹³

The 1972-76 Plan

The aborted 1966-72 plan was supplanted by the 1972-76 plan, which identified four objectives: (a) the creation of employment opportunities for all Guyanese, (b) the attainment of an equitable distribution of income, (c) the achievement of an equitable geographical distribution of economic activities, and (d) the establishment of the foundation for the attainment of self-sustained economic growth.

Proposed expenditure totalled G\$1,150mn, with annual allocations of G\$129mn (1972), G\$211mn (1973), G\$252mn (1974), G\$275mn (1975), and G\$284mn (1976).¹⁴ The principal expenditure categories with their annual allocation are shown in Table 4-3.

¹²Hope, p. 114.

¹³Id.

¹⁴Second Development Plan (Draft) 1972-1976 (Georgetown, Guyana: Ministry of Economic Development), pp. 161, 120, and K. F. S. King, A Great Future Together: The Development and Employment Plan (Georgetown, Guyana: Ministry of Economic Development), pp. 18, 8-12.

Table 4-3

Development Expenditures: Proposals for 1972-76
G\$mn by Years

Expenditure categories	1972	1973	1974	1975	1976	Total 1972-76
Agriculture (including sea- defense, drainage, and irrigation)	24.1	38.2	35.9	33.7	33.2	165.0
1. River and sea-defense						40.0
2. Drainage and irrigation						50.0
3. Machinery and land development						46.0
4. Livestock development						22.0
Manufacturing (including investment for power generation and food processing)						82.0
Transport and Communication	24.8	32.1	34.1	55.6	61.3	207.9
1. Water transport						46.0
2. Road program (linking newly opened resource bases with other areas of economic activity)						144.0
Housing	18.0	25.0	50.0	67.0	90.0	250.0

Source: Second Development Plan (Draft) 1972-1976 (Georgetown, Guyana: Ministry of Economic Development), pp. 161, 120, and K. F. S. King, A Great Future Together: The Development and Employment Plan (Georgetown, Guyana: Ministry of Economic Development), pp. 18, 8-12.

Despite the government's stress on cooperation as its development philosophy, through which it sought "to promote egalitarianism and national unity, and [to] create self-reliance and self-employment opportunities," the 1972-76 plan mapped out a development path whose catalyst would be the public sector. For example, 60 percent of planned public expenditures were to be undertaken by the central government and publicly-owned corporations, while only 10 percent were to be carried out by cooperatives.¹⁵

With a vision of self sufficiency and the hope of "feeding, clothing, and housing" the nation by 1976, the plan assumed that the rate of domestic savings would be about 30 percent of GDP, and that a substantial net capital inflow would be realized. Assuming that these and other targets--public expenditure and private gross investment amounting to G\$35mn (1972) and G\$100mn (1976)--were achieved, expected growth would bring about (a) an annual increase in GDP of approximately 8.5 percent, (b) a reduction in the rate of unemployment to about 4.9 percent, and (c) an annual increase in per capita income of 6 percent.¹⁶

The development thrust was expected to be supported by an annual fixed capital formation averaging about G\$230mn--over twice the average annual gross domestic investment of G\$109.6mn during 1967-71. The target was seen as "very difficult to accomplish in view of the

¹⁵Hope, p. 122.

¹⁶Second Development Plan, p. 79.

historical, structural, and financial forces that exist" in the economy. Moreover, because of these constraints, it was felt that the plan's objectives would have been more realistic had they been put in a ten to fifteen year time-frame.¹⁷

Equally important, the plan called for net capital inflow during the plan period of about 36 percent of planned expenditure, so that gross domestic savings were expected to provide a substantial amount of development finance. However, when one considers that gross domestic savings as a percent of GDP averaged 12.4 percent during 1964-67, and 15.1 percent during 1968-71, it was questionable whether the increase in required domestic savings could be achieved.

Further, an annual increase in GDP of about 8.5 percent was also questionable in that from the 1960's on such an increase was achieved only in 1974 (8.8 percent). This "was brought about by unusually favourable weather that resulted in large increases in the production of rice and sugar coupled with a significant increase in the world price of sugar."¹⁸ In addition, the scale of development would have required a "massive mobilization of human resources" whose quality and capacity were inadequate in terms of the proposed development.

In addition to the concerns about the targets set by the plan, inflationary impacts during the plan period, in which "the price of oil increased by 900 percent and the price of machinery and materials

¹⁷Hope, pp. 126, 130.

¹⁸Ibid., p. 132.

quadrupled,"¹⁹ undermined efforts to achieve the plan's objectives. This situation was compounded by (a) a depressed economy, (b) adverse weather that affected the production of sugar and rice causing output in these industries to fall below their targets, and (c) falling sugar prices.

Whereas the plan projected an average annual growth in GDP of 8.5 percent, the average increase in GDP was approximately 4.5 percent.²⁰ Further, although actual gross domestic investment of G\$1,406mn surpassed the planned investment of G\$1,150mn, gross national savings, the means for financing approximately 60 percent of total investment, averaged no more than 18 percent of GDP, rather than the 27 percent estimated.²¹

Again, the economic activities generated by the plan failed to lower the rate of unemployment below five percent by 1976. In fact, the rate of unemployment "continues to be above 15 percent."²² No less significant, the objective of feeding, clothing, and housing the nation by the end of the plan period was not realized.

¹⁹Budget Speech, Guyana - Sessional Paper No. 3, of 1980, April 8, 1980, pp. 10-11.

²⁰Draft Guidelines for the Third Development Plan, 1978-81 (with perspective for 1982-85), August 1977, p. 6.

²¹Hope, pp. 132-133.

²²Ibid., p. 132.

National Development in Transition

Officials in the Guyana government have argued that the transition from the 1966-72 plan to the 1972-76 plan resulted from the need to change the rate and direction of development in the economy. More than this, however, the transition seemed inevitable since the 1966-72 plan had failed to bring about expected improvement in the economy. The 1966-72 plan was ambiguous in that the objectives, like their order of priority, were unclear. Further, it was overambitious in that the economy lacked the absorptive capacity to accommodate planned expenditure. Finally it was "a diverse, incongruous collection of projects."

The 1972-76 plan, on the other hand, was designed to promote economic independence and self-sufficiency. It was expected to provide the groundwork for a diversified economy and a more efficient agricultural sector. Given such restructuring, the economy was expected to feed, house, and clothe the nation by 1976. This goal was not achieved. The transition was apparently consistent with cooperativism, the development philosophy adapted by the PNC in 1970. Through cooperatives the "little man" was expected to assume command over the economy. But the cooperative sector remained relatively small while the public sector grew to about 80 percent of the economy. Economic power, then, resided within the public sector and not with the "little man."

While the 1966-72 plan sought to provide basic infrastructure for the economy, the 1972-76 plan focused on building up sectors or

industries, such as the rice industry, that were identified as "growth points." Furthermore, the plan sought both to curtail domestic consumption, particularly of imported consumer goods, and to encourage import substitution, stressing production of domestic alternatives to foreign items which the government had banned.

In addition, the plan encouraged export promotion. The rice industry was expected (a) to increase its earnings from exports and its contribution to the GDP, (b) to increase income in the agricultural sector, and (c) to provide employment opportunities for the unemployed.

In sum, the transition from the 1966-72 plan to the 1972-76 plan came about because (a) the earlier plan was, in general, a failure; (b) the PNC government desired to program development in line with its new development philosophy; and (c) the strategy for development had changed.

CHAPTER 5

DECENTRALIZATION AND LOCALIZATION

Decentralization and Administrative Structure

The PNC government's view that development ultimately results from what people do and how they do it may be taken as a rationale for the government's articulation of the principle of decentralization and participatory democracy. Through decentralization and participatory democracy, the government hopes (a) to effect its strategy of balanced geographical growth, (b) to have maximum involvement of people in decision-making and plan development, (c) to devolve economic and political power on "the masses," and (d) to make communities partly responsible for the improvement of their social welfare. It is thus expected that the society will move closer to achieving greater equality in income distribution.

Earlier comments concerning the PNC's efforts at organization and mobilization, the reorganized party structure (which is "coincident with government administrative regions"), and the need to refashion old institutions while putting new content into others that already exist, are indirect references to decentralization and participatory democracy. The regional system, the reformed local government system, and cooperatives are institutional symbols of the principle of decentralization and participatory democracy.

The Regional System

The regional system was established on May 1, 1974. As a result, the country was divided "into six administrative regions with six Ministers of State as functional heads of their respective regions." These six regions are "to facilitate and accelerate the process of development" in forging "social reconstruction and national development."¹ The country is also sub-divided into twenty other regions that fall within the six, and that the Second Development Plan, 1972-76, labeled "administrative regions." For these twenty regions, the Second Development Plan presents "outlines" of development plans² that in turn are said to be in consonance with the objective of promoting "an equitable distribution of industries on a regional basis."³ These developments, notwithstanding, "and pursuant to Article 72 (i) of the Constitution," the country would subsequently be divided into ten local government regions.⁴ Thus, the regional picture seems to suggest structural confusion.

Figure 5-1 sketches the institutional arrangement for the Regional Structure established in 1974. The relationship and

¹Guyana in Brief, p. 55. The six regions are: East Berbice/Corentyne, Rupununi, Essequibo Coast and Islands, West Demerara, Mazaruni/Potaro, East Demerara/West Coast Berbice, and North West.

²Second Development Plan, pp. 130-146.

³A Great Future Together: The Development and Employment Plan, p. 11.

⁴State Paper on "The Reorganisation of the Local Government System in Guyana," (n.d.), p. 10.

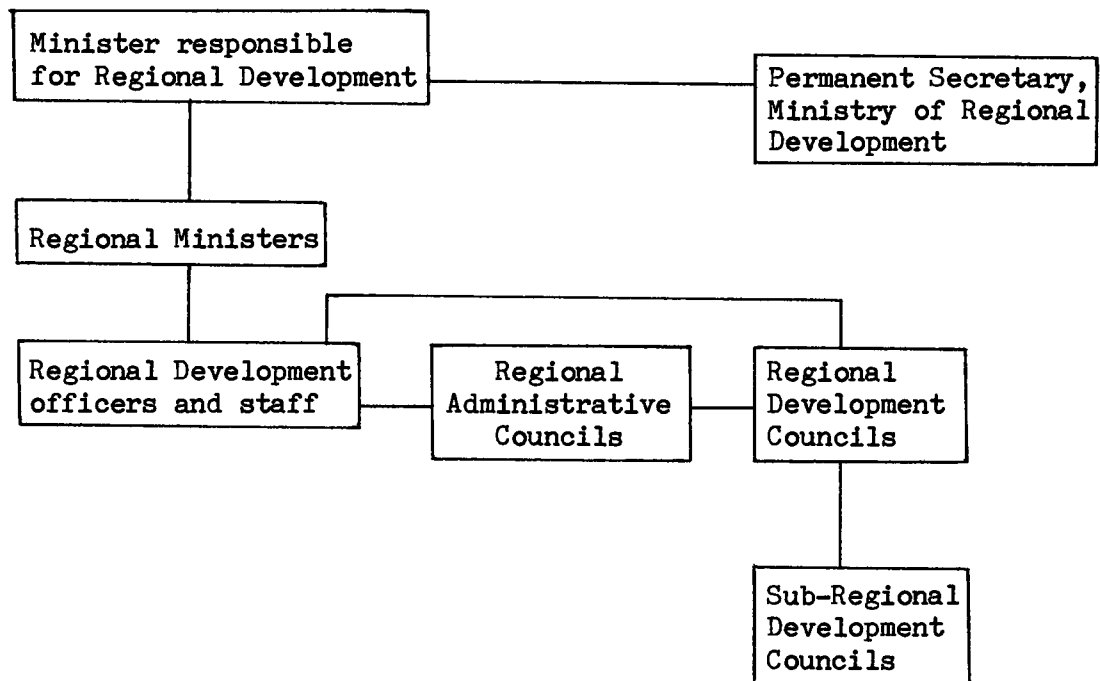


Figure 5-1. The Regional Structure.

Source: Guyana in Brief (Ruimveldt, Georgetown: Guyana National Lithographic Co., Ltd.), p. 57.

responsibilities of the organs within the regional structure are as follows:⁵

1. The Minister of Economic Development and Cooperatives is also responsible for Regional Development. Thus Regional Ministers of State fall under the Ministry of Economic Development.

2. Although a Cabinet member, the Regional Minister of State, "is not responsible for a ministry," his responsibilities cover the administration of his region and all government departments therein. He thus has "a special relationship to all 'subject' ministries." Further, he has "jurisdiction over all government personnel, vehicles, equipment and materials in the region (with the exception of Security Forces), and the authority to make decisions over a wide range of matters without reference to the Central Government." To fuse regional political and economic development (Figure 3-1, p. 49), the Regional Minister functions "as Chairman of the [PNC's] Regional Organisation so as to unite political and governmental authority in the region."

3. The Regional Administrative Council, chaired by the Regional Minister, "comprises the senior supervisory representative of all government agencies [including corporations] and local authorities in the region." It "coordinates and monitors all public sector activities and programmes in the region and advises the Regional Minister on all relevant matters, including the development of the region."

⁵Guyana in Brief, pp. 55-56.

4. Representatives of the Sub-Regional Councils, Local Authorities, Regional Organizations and community leaders constitute the Regional Development Council, which is also chaired by the Regional Minister. The council's task is to "coordinate and monitor the work of the Sub-Regional Councils and advise on planning and development in the Region" as well as on other related matters.

5. Through the Regional Development Council, the Sub-Regional Development Council submits sub-regional development plans to the Regional Minister. In focussing on sub-regional development, the council mobilizes resources in its area for projected works. Chaired by a full-time individual drawn from the locality, the council is further served by "community leaders and representative [political, social, religious, and industrial] organizations active within the Sub-Region."

The Evolution of Local Government: A Brief Survey

One argument advanced in the "State Paper on the Reorganisation of the Local Government System in Guyana" is that, apart from the view that the former system was outmoded, it could not cope, nor should it have been expected to cope, "with the complex and massive development demands" of local areas because of its inherent structural problems and the way in which it evolved. Thus the system is said to have been "operationally ineffective [and that it] suffered from the inability to involve large numbers of citizens directly in the work of managing their communities."⁶ This section, then, surveys the evolution of the

⁶State Paper (Local Government System), pp. 2-4.

local government system in Guyana in order (a) to see the arguments advanced for "a new and radical system of local government" in an historical context, and to discuss the extent to which they are valid or invalid; and (b) to form a backdrop to the comments and criticisms leveled against the government's espousal of decentralization and participatory democracy in local governance.

Village self-government in Guyana resulted from "the interplay of many forces and factors." For example, there was "the physical structure of the Colony and the paradox of her depressed coastal belt where the fertility of its sedimentary deposits proved an allurements to the early planter, [who, like succeeding generations, were confronted with] water control problems in the form of sea defenses, drainage and irrigation." The English Public Health Movement (1848-58), in addition to "a succession of epidemics, Yellow Fever in 1837 and 1841, and Smallpox in the latter year, impressed on the Colony's Government the need for effective sanitary administration in the villages." Local self-government then was predicated on the "desire for good sanitation and safety to the public health" as well as on "promoting the economic welfare of the villagers by ensuring the provision of satisfactory drainage for coastal villages."⁷

What were the impressions of local government in Guyana as it evolved? In 1866, Jamaica, and in 1905, Trinidad, looked to it as a model for addressing some of their own problems. In 1943, reference

⁷Ursula Kathleen (Webb) Hicks, Development from Below: Local Government and Finance in Developing Countries in the Commonwealth (Oxford: Clarendon Press, 1961), pp. 189-190.

was made to "the sound system of local government which the Colony possesses,"⁸ and again, in 1945, T. S. Simey commented that "British Guiana is therefore left as the solitary example in the West Indies of a colony which possessed something in the nature of a vital system of local government." Even "in 1953 the Colony still maintained her position."⁹

Guyana seemed to have evolved an advanced form of local government. "Georgetown had an all-elected municipality before the Municipal Corporations Act (1835) attempted to extend this principle among the urban municipalities of Great Britain." Further, "in the villages it [had] been largely the same." More than this, however, "local government in British Guiana [had] been taking place over a period of time ['the century of time that lies between the Poor Law Amendment Act (1834) and the Local Government Act (1933)'] when the minds of men in Britain were directed, as never before, to the systematic organization and development of their country's institutions of local government."

Unlike its counterparts in England and Wales, however, local government in Guyana did not permeate the lives of its citizens. For example, in England and Wales local government developed from special-purpose to all-purpose bodies under which there was

⁸Memorandum on the Development of Social Welfare Services in British Guiana, by the Social Welfare Adviser to the Comptroller for Development and Welfare in the West Indies., British Guiana Legislative Council, No. 7/1943, p. 1.

⁹This, and the quotations which follow through page 87 (the end of this section) are taken from Hicks, pp. 190-215.

"consolidation of local services and function," while "financial responsibility moved inwards from the community to the central government." In Guyana, the provision of services--e.g., water control, and sea-defense--necessitated that financial responsibility be centralized. Yet, unlike in Britain, consolidation of local administration did not follow. Instead, administrative control moved towards centralization with the development of "special-purpose controlling authorities" such as the central drainage and irrigation board that replaced twenty-one related local boards in 1940.

Thus, "as far as British Guiana [was] concerned the principle of 'no financial responsibility, no administrative control' [had] been rigidly applied to the major social services." Simply put, apart from the fact that the villages did not have the financial resources to undertake water-control, nor to provide social services required by their communities, "the central government [had no need of] the local authorities as its local agencies." In fact, "most of the social services [were] administered by the central government on a regional basis."

In part because of these factors, "local government did not permeate the life of the householder to anything like the extent that it did in Britain. Between 1838 and 1953 local government in British Guiana [had] not kept pace with its foster-parent in Britain, but presented in 1953 an example of arrested development, in spite of the fact that a tremendous amount of Government effort, legislative and executive, [had] been applied to problems in local self-government."

What seem to have been the principal short-comings of the local government system in Guyana? First, it lacked a holistic approach towards problems, especially in terms of long-run planning and direction. Second, it "failed to provide the people with effective training for responsible self-government," as was the case where "local government [was used] as an instrument of political education in India."

Indeed, local government in Guyana was the outcome "of a series of ad hoc administrative experiments with the sole object of solving the drainage problems in the villages." It may be argued that limited objectives limited further development of the local government system. But to the questions of whether there was a genuine need for local government in Guyana or whether local communities could have administered the services provided and administered by the government with greater efficiency, the answer seems to have been clear--No! In fact, it appeared that in "British Guiana as a whole conditions [lent] themselves to administration from the centre rather than to local government;" and further, "no administrative advantage [was] likely to be gained by transferring to local authorities those services administered by the central government but appropriate elsewhere to local government."

Just as there was no "blueprint [in 1838] for the deliberate use of local government as a means of political training," so too there was none in 1953. By 1953, however, "constitutional development [had] outstripped that of local government" and this factor limited the role of local government in political education.

The Reorganization of Local Government: Rationale and Structure

The old local government system has been categorized as "operationally ineffective." Consequently the PNC held that it did not have the legal nor organizational capacity to assume an active role in development, and thus its "activities could not expand beyond conventional regulatory and maintenance functions." Further, the PNC claims that since the system was not devised by Guyanese principals and did not originate out of the Guyanese experience, it evolved outside of a national policy framework within which it would have extended local democracy throughout Guyana.¹⁰

Some of the more specific arguments in support of reorganizing the old local government system were:

1. It had no coherent philosophy to underpin its activities, "define its objectives and set its goals."
2. Local authorities were "not conceived as economic units and [thus their] boundaries were not drawn with an eye to their economic resources." They then lacked "geographic expanse and the resource base" to become economically viable.
3. Further, boundaries were haphazard in that they "cut across infrastructure, facilities, land and other resources." This, in turn, makes for problems in areas of management and coordination.

¹⁰State Paper (Local Government System), pp. 3-4.

4. The system, by excluding "the vast majority of the citizens form active participation in the management of their communities stultified the growth of local democracy."¹¹

Given these arguments, the 1980 reorganization assumed the structure shown in Figure 5-2.

At the local level, the country is divided into ten local government regions. Each of these is further divided into sub-regions, districts, communities, neighbourhoods, and neighbourhood units. In terms of governance, each of these units is administered by a body of elected representatives from the locality. Further, each region is administered by a Regional Democratic Council whose members are elected by its residents.

The National Congress of Local Democratic Organs and the Supreme Congress of the People provide an interface between the local and national levels in the reorganized local government structure. Members of the National Congress of Local Democratic Organs are elected "by and from among the members of such local democratic organs as may be prescribed by Parliament."¹² It, in turn, elects two of its members to sit in the National Assembly. In addition, each Regional Democratic Council elects one of its members to sit in the National Assembly. Thus twelve members--two from the National Congress and ten from the Regional Democratic Councils--directly represent local government interests in the National Assembly. The Supreme Congress

¹¹Ibid., pp. 4-5.

¹²Constitution of Guyana Act, 1980, Article 80 (1), p. 36.

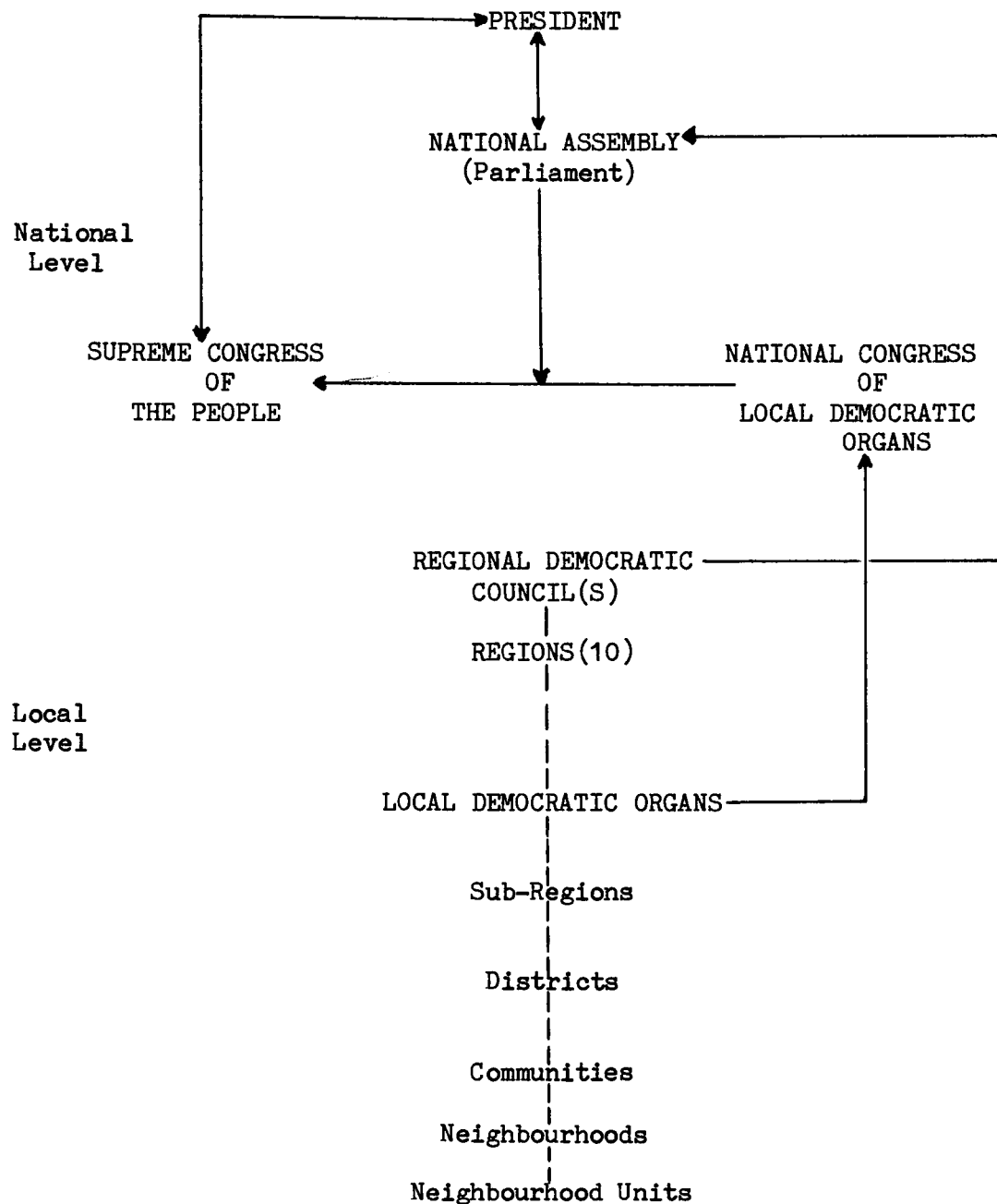


Figure 5-2. Reorganized Local Government System

[Effected with the promulgation of the Constitution of the Cooperative Republic of Guyana Act, 1980]

of the People comprise members of the National Assembly and members of the National Congress of Local Government Organs.

The accent of such reorganization is on "decentralization and devolution." Each local government region is also recognized as an economic planning region. Apart from coordinating the activities of the other local democratic organs, and performing related activities such as undertaking surveys, compiling statistical and other data, and identifying local resources, local government regions are expected to "establish their own planning agencies for drafting their development plans, within the framework of national planning guidelines and procedures." Thus they are expected to be "linked with and work in close collaboration with the State Planning Commission."¹³

As they cooperate and coordinate their activities, each local government organ is expected to be "action and development oriented." They are to have "a shared responsibility to encourage economic activities, stimulate production, promote increasingly higher levels of efficiency, maintain and preserve public property, protect communities from criminal, vandal and other anti-social activities, raise cultural standards and levels of civic consciousness, cultivate the social life of the people, and generally safeguard and improve their legal and other rights." It is further expected that these local forms of government will engage in "agriculture, manufacturing

¹³State Paper (Local Government System), p. 15.

and other productive enterprises, in marketing and in the provision of services."¹⁴

In time, too, they will be expected "in their own right and also as agents of the Central Government, [to assume] many of the services now provided by the Central Government, [for example] health, education and training, social welfare"¹⁵ Finally, the National Congress of Local Government Organs is responsible "for representing the interests of local government in Guyana," while the Supreme Congress of the People "may discuss any matter of public interest and make recommendations thereon to the National Assembly or the Government."¹⁶

Now, recall that the regional system was established in 1974 "to facilitate and accelerate the process of development" and "to encourage social reconstruction and national development." This was to be accomplished through the Regional Ministries and Regional Development Councils (Figure 5-1, p. 81) Recall, further, that each local government organ is expected to be "action and development oriented" and that each local government region is expected to establish its own planning agency and to develop and implement plans for its economic growth and development. It thus seems that the local government system is to duplicate, in a major way, those same activities that the regional system is empowered to undertake.

¹⁴Ibid., p. 14.

¹⁵Id.

¹⁶Constitution of Guyana Act, 1980, Articles 79 and 83, pp. 36-37.

We learn, however, that "the regional system will not disappear or diminish in importance and relevance," but that it "will undergo a qualitative change as local democratic organs assume more and more responsibility for many of the activities now carried out by the Central Government in the Regions."¹⁷ The regional system "will continue to maintain an overview of regional development, to co-ordinate the activities of the Central Government and other public sector agencies and the people, and will continue to constitute the formal link in the Regions between the local government authorities on the one hand, and the Party and the Central Government on the other."¹⁸ One may ask: what then is the role and purpose of the Regional Democratic Councils and the National Congress of Local Democratic Organs?

Decentralization and Administrative Structure: Another View

There are, of course, questions about the government's sincerity on the issue of "decentralization and devolution" and on local government reform as a means for achieving "socialist democracy." Furthermore, there are related questions about the true status of the local government institutions. Are they in fact local government organs? Do they exercise de jure and de facto authority and control over local issues and concerns? Or are they "broker"

¹⁷State Paper (Local Government System), p. 16.

¹⁸Id.

institutions¹⁹--extensions or proxies of the central government--whose role is to secure the compliance of the local populace with central government schemes or positions?

The local government system prior to reform, because it originated outside the Guyanese experience, was, we were told, "operationally ineffective" and failed "to involve large numbers of citizens directly in the work of managing their communities."²⁰ The sense here is that it neither served development nor local democracy. But an argument in rebuttal can assert that the failure of the local government system ought not to be blamed on Guyana's colonial past but in fact should be laid at the PNC's doorsteps. Why? The claim is that "the party certainly never tried to make the system work. [And so] it allowed a minimum of people's participation which the system was designed to encourage."²¹ Indeed, "the system [was] allowed by the government to stagnate."

What type of local democracy, decentralization, and devolution did the government permit? Prior to local government reforms in 1980, local government elections had not been held since 1970. In 1972, the Local Government Postponement of Elections Act extended the term of office of councillors to 1974. Again in 1974, the Local Government

¹⁹Despres, p. 23.

²⁰State Paper (Local Government System), p. 4.

²¹Catholic Standard (Georgetown: Guyana), Sunday, August 24, 1980, "Local Government Undermined." This, the next, and the quotations in the following four paragraphs are from this source, p. 8.

Postponement of Elections Act (No. 2) extended councillors' terms of office to 1976. In 1976, by Order of the Minister of Local Government, councillors enjoyed another extension of their term of office to 1978. Thereafter, local government elections were postponed indefinitely. During this decade, local government decisions "were taken more and more by the central authorities." Thus, with regard to the notion that councillors saw their positions as honorific [a point made in State Paper], it is argued that "they also perceived, quite correctly, [that] they did not represent the people [who] saw them as mere puppets."

And what of the new system? Operationally, "the new system is likely to make the people at the local level puppets on a string, that string being the twelve additional members of parliament who will be manipulated by the centre." Structurally, it makes for "confusion since there will now be a new tier erected by the inclusion of the ten members of parliament elected by the local government areas, in addition to the two elected by the National Congress of Local Democratic Organs."

And decentralization? "[C]entralization has been intensified by the appointment of the large array of Regional Ministers." And the principle of democratization? "Whatever the merits or demerits of the new system may be on paper, it will never work if free and fair elections are not held, and if the ruling party continues to impose its will on the people at every level."

In fact, the imposition of the ruling party's will on the people strikes at broad based political participation in local government.

For example, the Local Government Reform Bill that sought "to establish the framework for a completely new and radical system of local government" was enacted into law in just one week [August 11-18, 1980]. The government, of course, claims that the reform was previously discussed with local authorities, trades unions, and other public bodies. Despite this claim, meaningful democratic participation in the political process depends on access to pertinent information. Yet as of August 23, 1980, a copy of the Bill could not be purchased at the Ministry of Information or the Attorney General's office.

Now, what is really "new and radical" about the reformed local government system? It promises decentralization and devolution but is inhibited by paternalism and dependency. Here Article 77 of the Constitution of the Cooperative Republic Act 1980 is instructive: "The development programme of each region shall be integrated into the national development plans, and the Government shall allocate funds to each region to enable it to implement its development programme."²² Thus it is possible that all local plans and consequently initiatives could be held hostage by the government. Furthermore, it seems that "financial and other resources--and therefore the power to get things done--lay with the Central Government."²³

²²Constitution of Guyana Act, 1980, p. 36.

²³Catholic Standard, p. 8.

Equally important is the view that participatory democracy at the local level (as well as at the national level) cannot be expressed without free and fair elections. To the extent, then, that elections are controlled by the regime and not by an Elections Commission, participatory democracy will be regarded by many publics as a facade. Likewise, decentralization and participatory democracy cannot be meaningful within an environment where "the massive state sector gives the regime control over the lives of hundreds of thousands," and in which "the use of victimisation and the threat of victimisation to punish those who take part in non-governmental politics" seems commonplace.²⁴

Given the five "Supreme Organs of Democratic Power"--the Parliament, the National Congress of Local Democratic Organs, the Supreme Congress of the People, the President, and the Cabinet, as provided by the Constitution of Guyana--one commentator asserts that "the President is not only the supreme executive authority, but the supreme legislative authority, since he has a veto power over the acts of the supreme Parliament and the power to make that veto final,"²⁵ implying that the National Congress of Local Democratic Organs and the Supreme Congress of the People are "rubber-stamp" institutions.

In addition, it is argued that the intention of Article 75 of the Constitution--

²⁴Caribbean Contact [Bridgetown: Barbados (December, 1981)] 9:8, "Constitutional Politics in Guyana's Second Republic," p. 8.

²⁵Id.

Parliament may provide for Local democratic organs to take decisions which are binding upon their agencies and institutions, and upon the communities and citizens of their areas--

is to give coercive power to the Local Democratic Organs. The contention rests too on the politics implicit in the statement that "in this country the doctrine of paramountcy of the ruling party is growing into the doctrine of monopoly of the ruling party."²⁶

In short, these views suggest that the principle of decentralization and participatory democracy is a political ploy or an empty phraseology. Its effectiveness is questioned since it does not devolve power on the masses as it claims, so that the principle is thus deceptive.

²⁶Id.

PART II: PRACTICE AND REALITY

CHAPTER 6

THE MMA PROJECT: THE SETTING

Geo-Physical and Demographic Factors

Guyana's coastal plain stretches for 270 miles, with depths extending inland between 10 and 40 miles. The MMA project area is situated within the plain in the counties of Demerara and Berbice, two of the country's three counties. Stretching for 45 miles along the East Coast Demerara/West Coast Berbice administrative region, the project area includes the districts between Mahaica and Mahaicony (East Coast Demerara) and Abary Creek and Rosignol (West Coast Berbice). It reaches inland for approximately 15 miles to the proposed conservancy dam and follows the west bank of the Berbice River for about 30 miles. The MMA sub-region is bounded on the "east by the Berbice River, [on the] west by Mahaica-Unity local authority; the East Demerara conservancy and peiggasse areas of the Mahaica River, [on the] north by the Atlantic Ocean, and [on the] south by the southern boundary of the proposed reservoir."¹ The project area measures about 732 square miles.

With small variations, the coastal plain experiences two dry and two wet seasons: February-April, dry; May-August, wet (the spring season); September-October, dry; and November-January, wet (the autumn

¹A Sub-Regional Physical Development Plan: Mahaica, Mahaicony, Abary, Vols. I and II (Georgetown, Guyana: Ministry of Housing, 1979), p. 1.

season). Accordingly, the work cycle in Guyana's rice culture is amenable to double cropping, the first in spring and the second in autumn. The mean annual coastal rainfall is 96.7 inches, with a standard deviation of 8.7 inches. Although there is less rainfall during rice cultivation and harvest, deviation in rainfall during the rice growing seasons and throughout the rest of the year is insignificant. The mean monthly rainfall, however, is greater in spring than in autumn; and there is less monthly deviation in rainfall in spring than in autumn.² Table 6-1 capsules this condition.

With a range between 68°F and 93°F, the mean temperature on the coastal plain is 80°F. Daylight hours range from 11.5 to 12.5, and the daily average sunshine is approximately 7 hours.

The coastal environment, with its alluvial-clay base, is fertile and suited to wet rice cultivation. However, it is "very unstable and extremely complex" because the

process of erosion, drift, deposit, and accretion . . . leads to consolidation and added weight. The weight build-up causes gradual settlement with a seaward slope and additional erosion. Clay thus eroded is deposited to the westward by prevailing currents causing accretion elsewhere and raising different but acute difficulties since the silt eventually blocks the outlets of drainage systems. In addition to the sea defenses, the flatness of the coastal plain and the clay composition of its soil often makes drainage too slow [and furthermore] after seasonally heavy rainfalls, water builds up in the savannahs behind the

²Rice II, Second Guyana Rice Modernization Project [(Exhibit F-2, "Monthly Rainfall of Guyana Coastlands in Inches," Guyana Quarterly Statistical Digest, December, 1976, Table 1), Washington, D.C.: Checchi and Co., March 1979] and Quarterly Statistical Digest (Georgetown, Guyana: Ministry of Economic Development, 1978), pp. 2-3.

Table 6-1

Monthly Rainfall 1967-76
(inches)

	Spring				Autumn			
	Dry		Wet		Dry		Wet	
	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation
January	---	---	---	---	---	---	10.2	3.8
February	5.5	3.7	---	---	---	---	---	---
March	5.0	3.2	---	---	---	---	---	---
April	7.2	2.9	---	---	---	---	---	---
May	---	---	12.0	4.2	---	---	---	---
June	---	---	12.9	1.9	---	---	---	---
July	---	---	10.2	2.4	---	---	---	---
August	---	---	8.4	3.2	---	---	---	---
September	---	---	---	---	4.4	2.7	---	---
October	---	---	---	---	4.1	2.6	---	---
November	---	---	---	---	---	---	7.2	3.0
December	---	---	---	---	---	---	9.9	5.1

Source: Rice II, Second Guyana Rice Modernization Project,
Exhibit F-2 (Appendix).

coastal strip [with threat of] flooding from the landward as well as the seaward side.³

This means that infrastructural works are necessities.

There are eleven localities and nine existing settlement centers in the MMA sub-region.⁴ These had a population of approximately 46,500 persons in 1978. The riverain population is about 5,000. The sub-regional population, "scattered at varying densities along the main coastal road in a rather continuous pattern of ribbon development,"⁵ is approximately 68,100 persons, about 8 percent of the national population. Weighted in terms of population and services, the principal residential clusters in hierarchical order are: Onverwagt/Fort Wellington, Mahaica, Mahaicony, and Rosignol/Blairmont. The sub-region's population distribution is shown in Table 6-2. The MMA sub-regional population is young. In fact, children 14 years and less comprise 47 percent of the population; those 24 years and under,

³Rice II, Chapter 1, pp. 9-10.

⁴A Sub-Regional Plan, pp. 1, 101. The localities are: Mahaica-Unity District Council, Cane Grove District Council, West Mahaicony District Council, East Mahaicony District Council, Rising Sun/Eldorado Village Council, Temple/Seafield Village Council, Naarstigheid/Union District Council, Woodley Park/Bath Village Council, Bel Air/Woodlands Village Council, Rosignol/Zeelust District Council, and Gelderland/Blairmont Village Council. Existing settlement centers, with populations in parentheses, are:

Onverwagt/Fort Wellington (9400)
Rosignol (6600)
Woodley Park (6600)
Mahaica (6600)
Blairmont (3850)
Dundee (3850)
Cane Grove (3600)
Belladrum (3300)
Mahaicony (2500)

⁵Ibid. p. 100.

Table 6-2

Population Distribution: MMA Sub-Region

Age	Male	Female	Total	Percent
0-14	16,080	15,954	32,034	46.9
15-44	12,750	13,439	26,189	38.6
45-59	3,095	3,067	6,162	9.0
60+	1,716	1,999	3,715	5.5
Total	33,641	34,459	68,100	100.0

Source: A Sub-Regional Plan, p. 30.

about 64 percent, and the age group up to 44 years, 85.5 percent. From Table 6-2 one can derive the dependency ratio for the MMA sub-region. There are 110 young or elderly persons, "for every 100 persons in the economically active population." This ratio is the same as the national dependency ratio in 1970, which had risen from 107 in 1960.⁶ Actually, the sub-region's dependency ratio, like the national ratio, may well be higher. Fifty-one percent of the aged 15 to 59 are female. Many of these, and even some male members in this age group, may not be gainfully employed and their sustenance has to be borne by other members of the community.

⁶Guyana: Population Census 1970, Summary Tables (Statistical Bureau, Ministry of Economic Development), pp. iv-v.

Table 6-3

Projected Population: MMA Sub-Region

Years	Without Development	With Development
1978	68,100	--
1985	80,000	85,000
1990	90,200	102,500
2000	112,900	135,000

Source: A Sub-Regional Plan, p. 31.

The 1960-70 rate of population growth in the sub-region, as reflected by East Coast Demerara (2.4 percent) and West Coast Berbice (2.2 percent), is lower than the national average of 2.9 percent.⁷ Projected population increase for this area, with and without the project's developmental impacts, are shown in Table 6-3. The difference between these projections may be attributed primarily to net immigration.

Village Settlement and Sociocultural Integration

Chapter 2 described the forces which gave rise to peasant settlement: the abolition of slavery and the purchase of abandoned estates by ex-slaves, and the fulfillment of contracted indentureship and the settlement of East Indians on land development schemes and on

⁷A Sub-Regional Plan, p. 29.

former Crown lands. Historical forces, then, were primarily responsible for the racial composition of village settlements in Guyana. Later, however, communal patterns were also influenced by differential economic adaptation to social and structural forces in the economy. These factors have led to villages which are either predominantly African or predominantly East Indian in origin. This condition applies to the existing settlement centers in the MMA region.

Although there are pockets of Afro-Guyanese within these centers, the region's population is overwhelmingly East Indian. Again, these settlement patterns conform to differential economic adaptation in that Afro-Guyanese have generally shown a preference for wage labor and have settled in close proximity to or in urban centers, while East Indians have traditionally been the farm operators and rural dwellers.⁸

It has been suggested that the spatial pattern of Guyana's coastal plain is plantation generated and that "locational elements of this plantation landscape persist and continue to encourage the same type of migratory livelihood activity that necessitated this spatial pattern in the first place."⁹ How is this so? The rationale goes as follows:

⁸Despres, p. 68.

⁹Bonham C. Richardson, "Spatial Determinants of Rural Livelihood in Coastal Guyana," The Professional Geographer (November 1973) 25:4:363; Richardson, "Guyana's 'Green Revolution:' Social and Ecological Problems in an Agricultural Development Programme," Caribbean Quarterly (March 1972) 18:1:21.

By the early nineteenth century, plantations were being reclaimed from the coastal lands along the Atlantic littoral, and the necessities of water control influenced the shape of every new plantation. A seawall was erected at the foreshore to keep ocean tides from inundating newly empoldered lands. A backdam kept ponded savannah waters from flooding the plantation from the rear. These two water barriers were connected by long "sideline" banks and irrigation and drainage canals resulting in each plantation acquiring an elongated rectangular shape with the long axis oriented at a right angle to the edge of the ocean.¹⁰

Further, in 1806, the estates were linked by a coastal road along which their buildings were situated, with the fields of sugar cane extending inland. Accordingly, the villages (both Afro-Guyanese and East Indian), a model of which is shown in Figure 6-1, are replications of "the settlement morphology of the original coastal plantation."¹¹

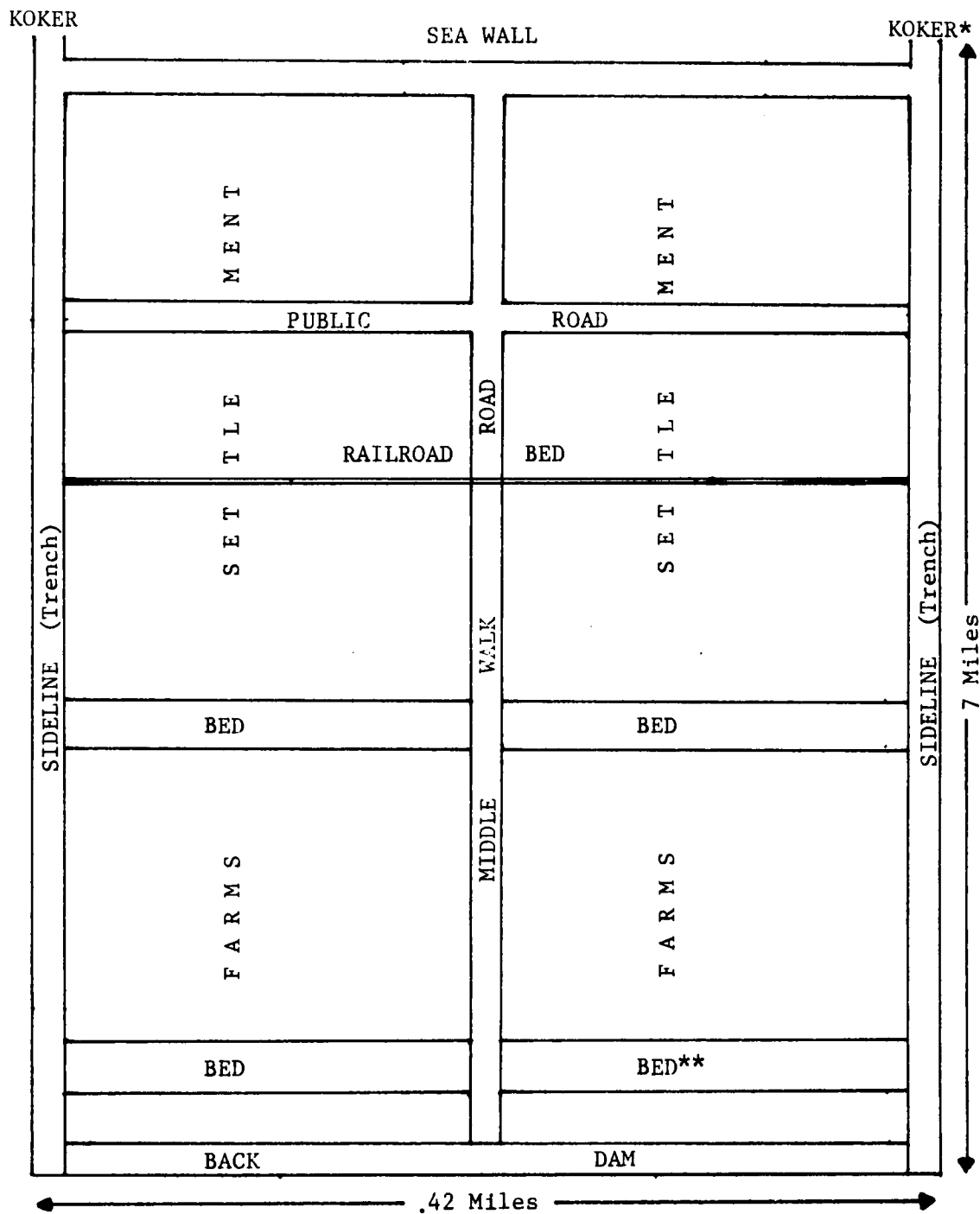
In addition, the villages are linked by the public road just as the "many estate nuclei" were linked in 1806. Now the public road is much more than "a relic landscape feature . . . [since it] continues to act as a directional element for contemporary livelihood activities."¹² Like their nineteenth century forebears, East Indians and Blacks use the public road to seek supplemental employment at the sugar estates and in the urban centers.

Moreover, the public road encourages sociocultural integration among the villages. Given inter-village trade in tuberous roots (cassava, eddoes, sweet-potatoes), in lentils (peas, bora), in

¹⁰Ibid., p. 364.

¹¹Id.

¹²Despres, pp. 70, 367.



*Generally, a koker is a manually operated one-door wooden sluice. Those which adjoin the sea-wall have two doors.

**A bed is a cultivational mound (approximately 3.5' x 8').

Figure 6-1. The Coastal Village: A Model

plantains and banana, mangoes, papaw, and other fruits, fish and shrimp, poultry, eggs, and milk, among other items, this market orientation, which may suggest "a common standard of valuing," acts as a centripetal force in drawing together Blacks and East Indians in mutually interdependent trading relationships. A consensus on "valuing" is an important element in cementing systemic relationships that involve cultural diversity. It minimizes conflicts that could fracture interdependent trading relationships and thereby polarize Blacks and East Indians in the villages.

The sociocultural integration at the village level may be more apparent than real. Blacks and Indians "meet . . . in the market place, in buying and selling."¹³ They may, however, constitute "a medley, for they mix but do not combine,"¹⁴ and "more often than not [market orientation at the village level] tends to reinforce cultural differences which separate . . . [East Indians and Blacks]."¹⁵ Such orientation "provides a set of means in terms of which very different cultural values may be expressed and reinforced."¹⁶ The racially segregated settlement pattern in conjunction with the market orientation in the MMA sub-region implies "a constraint on the economic, social and organisational integration and development of the

¹³J. S. Furnivall, Colonial Policy and Practice: A Comparative Study of Burma and Netherlands India (New York: New York University Press, 1956), p. 304.

¹⁴Id.

¹⁵Despres, pp. 149-150.

¹⁶Id.

sub-region."¹⁷ By inference it would seem that social relationships among Blacks and East Indians in the MMA region (as well as in the society at large) may be better expressed in terms of an associative rather than a unitary theory of sociocultural change.

Family Structure and Kinship

In the MMA area, as in Guyanese society, the predominant family structure is the two-generational nuclear family unit. These units, which may include "collateral relatives," are matrilocally or patrilocally extended by "instrumental and affective considerations."¹⁸ There are one and three generational family structures, but while the one-generational family unit constitutes a very small proportion of East Indian family groupings, one of five Afro-Guyanese families fall in this category. On the other hand, one of three East Indian families are three-generational. In this category, the Afro-Guyanese family ratio is, again, one of five.

Another interesting feature is the difference in the composition of Black and East Indian family groups when viewed against their

¹⁷ A Sub-Regional Plan, pp. 10, 31.

¹⁸ Despres, pp. 74-75, 78.

Note: For further insights on the Afro and East Indian Guyanese-family see, Raymond T. Smith, The Negro Family in British Guiana: Family Structure and Social Status in the Villages (London: Routledge and Kegan Paul, Ltd., 1956), and Chandra Jayawardena, Conflict and Solidarity in a Guyanese Plantation (London: Athlone Press, 1963).

development cycle.¹⁹ Assuming that the family unit starts with marriage or with a consensual (common-law) union, the developmental cycle of the East Indian family unit is described as follows: In Phase 1, a married couple resides with the husband's parents, forming a two generational household. In Phase 2, offspring born to a son and daughter-in-law create a patrilocally extended unit. In Phase 3, segmentation of the patrilocally extended unit occurs. This, for example, happens when "one of ego's brothers, who is residing at home, has married and begins to have children."²⁰ Ego moves to his own home with his family. Phase 4 reproduces Phase 1 a generation later: "the East Indian domestic group involves an alternation between two-generational and three-generational units."²¹

In comparison with the East Indian family structure, the Afro-Guyanese counterpart exhibits more "pattern variations." Generally, however, the structure of the Afro-Guyanese family unit is as follows: in Phase 1 there is a one-generational unit (which may exhibit variations leading to a situation similar to that in Phase

¹⁹In his analysis Despres, pp. 74-86, acknowledges Meyers Fortes' introduction to Jack Goody (ed.), The Developmental Cycle in Domestic Groups, Cambridge Papers in Social Anthropology, No. 1 (Cambridge: Cambridge University Press, 1962), pp. 1-14, as instrumental in developing the idea of growth cycles in family groups.

²⁰Other factors may also be responsible for segmentation. For example, segmentation may come about from ". . . the quality of affective bonds between father and son and between parents-in-law and daughter-in-law," from "the degree to which affective bonds are reinforced by economic cooperation between ego and his father," and from "the number of male siblings within the household," which, in turn, determines how much pressure there is for living space. Despres, p. 79.

²¹Id.

3).²² With offspring, the one-generational unit becomes a two-generational nuclear family unit "practicing neolocal residence" in Phase 2.²³ Unlike its East Indian counterpart, a Phase 3 Afro-Guyanese three-generational household "is not normally a phase in the developmental process of the domestic unit." Rather, it "is a pattern variation which serves to convey jural status to children without fathers" and, when consensual unions become legal, it soon "segments into nuclear types." "The developmental cycle of the Afro-Guyanese domestic group is one that typically involves an alternation between one-generational and two-generational units."²⁴

Of equal importance too are several differences between East Indian and Black families. Ninety percent of married East Indian sons live in close proximity to or in the village or its surrounding area, while 74 percent of their Black counterparts live outside the village and its surrounding district. Generally, married daughters of East Indians live outside the district while 36 percent of their Black counterparts live in their natal villages. Furthermore, of those

²²Despres, pp. 80-81, characterizes these variations: ". . . if a consensual union is involved, and if the male is absent from the village for prolonged period of work, the couple tend to reside in the home of the girl's parents On the other hand, if the couple is married, and if the husband is absent for long periods, residence with in-laws appears to be determined primarily on the basis of affective ties, property considerations, [and on] the husband's jural status When the husband works in the village or close to home, however, a neolocal rule applies"

²³Another variation of the two-generational nuclear family unit is that headed by a female. This situation may result from the death of her husband or separation from him, or she may not have married but have children fathered by several men.

²⁴Despres, pp. 81-82.

daughters of Black families who are married and reside in the village, 45 percent live in their own homes. While the East Indian family grouping is primarily patrilocal, that of Blacks is bilateral. These differences affect the probabilities that Black and East Indian families, as members of the work force, will commit and adapt themselves to development of the project area.

Recruitment, Commitment, Discipline, and Adaptation

The structure and kinship pattern of the family unit conditions its economic relationships. Family members not only consume together but are also involved in producing together. In this section, we focus on the family as a producing unit.

A family's outlook towards work is influenced by the authority exercised within the unit. In farm operations, for example, the father-husband of the East Indian household expects a united front and cooperation from his family. A son is supposed to comply with his father's wishes since their relationship is predicated upon duties and expectations relating to the household's role of accumulating resources and providing services. Thus the father "plans the farm operations . . . organizes expenditure . . . and decides how much money should be allocated to each member of the household for personal use."²⁵ Through such power, individual members of the family unit are often forced to conform to family norms. Should a family member

²⁵R. T. Smith and C. Jayawardena, "Marriage and the Family amongst East Indians in British Guiana," Social and Economic Studies (December 1959) 8:4:341.

refuse to accede to such norms, disruptions within the family may result. Given instrumental or affective ties, this problem may be resolved with minimum agitation, or the non-conforming party may be requested to reside elsewhere.

In Guyana (and the MMA area is no exception), it seems that East Indian family members may be more responsive to family norms than individual members of the Black family. Among East Indian family units, "authority is primarily defined and allocated in terms of family and kinship structures." On the other hand, the kinship structure among Guyanese of African origin, by placing "a great deal of emphasis upon the personal freedom of the individual, is much too equalitarian to represent an important source of authority."²⁶

Thus the Black family may not be a reliable source of agricultural labor in the MMA area. Two considerations support this view: (a) the sense of equalitarianism among individual members of the Black family, and (b) the high percentage of sons who live away from the village. The second condition reflects socioeconomic adaptation by Blacks to historical circumstances. They gravitated to urban areas, sought wage labor, and in the process alienated themselves from the soil, except for subsistence farming. They became tradesmen or artisans, sought employment in teaching and other professions, in the bauxite industry, and in the interior as "pork-knockers" (gold and diamond miners).

²⁶Despres, pp. 113-114.

In contrast, East Indian males who are segmented from the two-generational family unit reside in or in close proximity to the village. Given (a) such familial spatial relationships, (b) the East Indian family unit's orientation to authority, (c) instrumental ties within the extended family, and (d) their view of farming as an economic undertaking--and particularly their role in Guyana's rice culture--it seems that the East Indian family unit may be more adaptable to and instrumental in the success of the MMA project.

Beyond this, other factors discussed below may serve to induce labor to the MMA area.

Land Ownership and Title

"Land to the tiller" is one of the PNC's proposals for land reform and for encouraging Guyanese to farm. If Guyanese, especially the unemployed and landless, can identify any improvement in their material well-being with the ownership of the land that they cultivate, then transferring the title to land in the MMA project-area to those who would work it may be one means of attracting agricultural workers to the area. This rationale is one reason why land reform "is often proposed as a necessary first condition for agricultural development in many LDC's."²⁷ But a necessary first condition is not enough. Effective land reform must be supplemented by support systems: assured markets for rice and other cash crops,

²⁷Michael P. Todaro, Economic Development in the Third World, 2nd ed. (New York: Longman Inc., 1981), p. 278.

finance for appropriate technology and inputs, social infrastructure, better interregional transportation by water and road, and so forth.

Income (Livelihood)

Various models have been advanced to explain migration and labor flows in response to economic income differentials between urban and rural areas.²⁸ The gist is that people migrate to better their condition. This view seems quite plausible when applied to Guyana, and particularly to Black and East Indian migration. For example, it would be difficult to convince a young man to consider farming as a livelihood in the MMA area if he has had a secondary education, and it would be even more difficult if he can earn as much or more in government service or in the bauxite and alumina industry, with seemingly less effort. The agricultural sector's problem in recruiting labor may be gauged from the earning potential of rural farm households:

Two-thirds of the rural farm households had annual incomes below the U.S. target level for development assistance of G\$600 per capita; four-fifths had incomes below the Guyana target of G\$6,000 (about G\$900 per capita); further . . . less than ²⁹1 in 15 [households] can achieve this from farming alone.

²⁸See, for examples, Michael P. Todaro, "A Model of Labor Migration and Urban Unemployment in Less Developed Countries," American Economic Review (1969) 59:1:138-48; Todaro, Economic Development, pp. 238-246, 248-250; and S. Bowles, "Migration as Investment: Empirical Tests of the Human Investment Approach to Geographical Mobility," Review of Economics and Statistics (November 1970) 52:356-362.

²⁹The Income and Production of Guyana Rural Farm Households (An Analysis Based on the 1979 Guyana Rural Farm Household Survey), Robert R. Nathan Associates, Inc., Washington D.C., April 1980, Chapter 1, pp. 3, 1.

In 1979, for example, the rice farmer who worked 13.5 acres of land averaged about G\$1,880. Those who farmed between 2.5 and less than 10 acres averaged about G\$950; between 10 and 25 acres, about G\$2,345 to G\$2,530, and over 25 acres, about G\$7,200, in net income.³⁰ Likewise, "rice farming, on the average, appeared to provide net returns which were among the lowest of returns among farm enterprises, while farmers' cane and broiler production generally provided the highest net returns. Foodcrops, as a group, and other livestock were intermediate in terms of these average net returns."³¹

In addition to the problem of recruiting labor in the agricultural sector, low net returns to rice farming compared to that for other farm enterprises, are a disincentive such that farmers will not be very responsive to appeals to increase rice production.

To adjust such imbalance in income, the Kabawer Settlement Plan is expected to raise farmers' incomes to a target of about G\$9,000 per annum by 1989. This is to be accomplished by offering each of the 268 family units a 30 acre paddy field and a 2.5 acre homestead plot. Farmers' income will come from the production of double-cropped rice, milk, plantains, bananas, cabbages, black-eye peas, and sweet potatoes.³²

³⁰Rice II, Chapter II, p. 2.

³¹Income and Production of Guyana Rural Farm Households, Chapter 1, p. 2.

³²Kabawer Settlement Plan (Georgetown, Guyana: MMA-ADA), April, 1980, pp. viii, 7.

Linkages and Labor Force Stability

There is also a question about employment opportunities and their relationship to family stability and hence to the labor supply in the area. It is evident that much farming is done on a part-time basis, for we learn that "almost two-thirds of the income of the rural farm households comes from sources other than their own farms, with most of this coming from wages on non-agricultural work."³³ We further learn that in the MMA region, as well as in other development regions, "sufficient use has not been made of even simple, available technology to expand into secondary processing of primary products or into the manufacture of simple agro-based products."³⁴ At present there is very little, if any, linkage between the region's emphasis upon agricultural production and the generation of industrial activity.³⁵ Such linkages and the job opportunities that ensue, given the rate of unemployment in the economy, would serve, even if it did not actually pull labor in, then at least to moderate migration from the area.

³³Income and Production of Guyana Rural Farm Households, Chapter 1, p. 3.

³⁴A Sub-regional Plan, p. 13.

³⁵Addressing this situation, one commentator pointed out that, due to developmental and other mistakes, early efforts to can orange and pineapple juice and to dry fruits were unsuccessful. Subsequently, these operations were discontinued. Benefits from these operations may have included, for example, the reduction in the amount of spoilage of fruits; the opportunity to provide hinterland settlers with these items; employment opportunities which would have resulted from these operations; and, quite likely, a lower unit price for these goods if it is assumed that the price quoted includes a premium for spoilage.

Indeed, the importance of supply oriented (forward) linkages and demand oriented (backward) linkages is recognized in the development program for the region. For example, the program calls for "substantial investment in food processing, the expansion and establishment of garment manufacturing, clay bricks, pottery products, hats and handbags, hosiery and umbrellas."³⁶ To date, however, only a small part of this program has been implemented.

Further recognition of the need to broaden and stabilize the economic base of the MMA area is articulated in its location and settlement strategy. Onverwagt/Fort Wellington is earmarked as "the sub-regional administrative/service center" that is expected to "provide the highest level of services and facilities to meet the needs of the entire sub-region, such as technical and vocational schools, sub-regional hospital and sub-offices of central government agencies, commercial centre with its permanent market, banking and insurance facilities, sub-regional sports complex, warehousing and distribution points for fertilizers, pesticides and machinery."³⁷ In addition, it is expected that the region's economy will be vertically integrated with the development of agro-based industries such as breakfast cereal made from rice (some production is already on line), stockfeed (rice bran and bran meal), rice straw products, and the use of rice husks as fuel.

³⁶ Second Development Plan, 1972-1976, p. 136. See also K. F. S. King, A Great Future Together: The Development and Employment Plan, p. 24.

³⁷ A Sub-Regional Plan, p. 177.

Thus small and medium scale industrial undertakings having forward and backward linkages, and vertically integrated, would provide employment opportunities in the MMA area and help to stabilize its labor force. Labor stability may also be enhanced if economic activity in the area can, at least in part, be operated successfully through cooperatives. The rationale here is that cooperatives may engender a sense of community in the MMA area and thus retard out-migration.

Even for the East Indian family, the lure of rice-farming and the commitment to an agricultural livelihood may pale in the face of economic reality:

Guyanese farmers are increasingly becoming aware of the hardships and minimal returns of farming as well as less physically demanding and more economically rewarding opportunities off the farm. As a consequence, farmers are encouraging their children to learn job skills and complete their education so that they will not have to face the insecurities and hardships of farming as a way of life.³⁸

In particular,

[r]ice farmers increasingly view farming as a difficult, high risk occupation which does not offer the potential for economic betterment inherent in other lines of work. Education is today seen as a vehicle for upward social and economic mobility and an avenue open to children to avoid the frustrations and insecurities of tenant farming (particularly when they have no land to leave their children). Farmers desire financial security for their children, and although some rice farmers live a subsistence existence and cannot afford a higher education for their children, they will sacrifice what they can to achieve this goal. They feel that many of their children should turn to agriculture³⁹ only if they cannot obtain wage or salaried employment.

³⁸Rice II, Chapter II, p. 18.

³⁹Ibid., p. 22.

Evidently, a process of creolizing the East Indian family--i.e. adopting the attitudes of the Black family towards work and particularly rice cultivation--seems to be in operation. It is not surprising then that the "average age of rice farmers seems to be about 50 with a few farmers about 35."⁴⁰

If the target income for the region's farmers is attained, as well as other related improvements in the MMA area, the drift away from an agricultural livelihood may be arrested. At present, however, exposure to higher education is an escape corridor from agricultural labor in Guyana.

Ironically, this situation is reinforced by the government's educational policy of emphasizing human capital development and educational and curricular reform, and by development itself. For one commentator, this is compounded by "the difficulty in getting people in the agricultural sector" to go to the riverain and savannah areas of the MMA project where, at best, social services and amenities are minimal.

According to another commentator, however, conditions in some villages ten years ago (no electricity, questionably pure water supply) were only marginally if at all better than in the riverain areas. Consequently, given a health center, ownership of land, and adequate economic returns to farming, coupled with the program's commitment to improve the quality of life in these settlements in a reasonable time, people in the rural areas--especially those whose

⁴⁰Ibid., p. 15.

living styles approximate a pioneering experience and those who comprised the work force constructing the project's infrastructural works--may relocate in the settlement areas.

Physical Infrastructure

Origins

In Chapter 1 and earlier in this chapter we highlighted the ecological problems of the MMA project area and saw that infrastructural works were a means to enable this region to realize its agricultural potential. To summarize, the principal problems are (a) the level of salinity from the Atlantic Ocean upstream in the Mahaica, Mahaicony, and Abary Rivers; (b) poor gravity drainage caused, in part, by the area's alluvial soil; (c) the topography of West Berbice, which is below sea-level and prone to flooding; (d) rainfall in the hinterland that causes that area's creeks to fill and overflow onto the coastal plain; and, as a result, (e) "moisture stressed crops" whose yields are poor for want of adequate irrigation.⁴¹

In 1952, Mr. F. H. Hutchinson, Drainage and Irrigation consultant to the government, suggested ideas for water control in the Mahaicony-Abary area. In 1953, however, Mr. G. Lacey, government's irrigation advisor, recommended a more comprehensive approach in which "the three river basins [were to be considered] as a whole when approaching the

⁴¹MMA News Letter, Issue No. 5 (1980), p. 1.

problem of water control in the area."⁴² Topographical and hydrological surveys between the Mahaica and Berbice Rivers began in 1955. Suggestions to dig shallow conservancies in the inland areas to collect and store flood waters that could subsequently be used for irrigation during the dry season were not implemented because the government could not fund them.

Twenty years later the water control schemes of the MMA area were reviewed by Sir William Halcrow and Partners, consultants to the MMA project. Their 1976 report recommended two separate water control schemes: The Mahaicony-Abary Water Control Scheme, and the Mahaica Conservancy Scheme. Following this report, the government began the former scheme. Phase I would focus on water control of the Abary River, and Phase II on water control of the Mahaicony River. However, by December, 1977, work on Phase I had ceased because funds were not available to continue the project.

On February 1, 1978, upon review of the Halcrow report, the Inter-American Development Bank (IDB) agreed to fund Phase I of the Abary River Water Control Scheme. The total cost was estimated at US\$72.6mn (G\$200mn). Of this, the IDB was to fund 68 percent and the Government of Guyana 32 percent. The evolution of the project to this time had taken 26 years.

First Plans and Changes Therein

The MMA project area encompasses 423,000 gross acres. Of this amount, 115,114 gross acres would be developed under Phase I, from

⁴²Guyana News (Canada Newsletter, No. 2/1979), p. 2.

which the following is expected to be accomplished: flood control, irrigation and drainage works for the Mahaicony-Abary region, strengthening and expanding agricultural research in the area, agricultural extension, and land development.⁴³ The following works were contemplated by the MMA-ADA:

1. Construction of a conservancy dam approximately 35 miles long, on the Abary Basin.
2. Construction of a main canal approximately 29 miles long.
3. Construction of approximately 19 distributary systems, one head regulator, and four intermediate regulators.
4. Construction of a drainage and irrigation system covering 81,790 acres of land.
5. Construction of tertiary works of subsidiary drains from collector drains to proprietors plots, as well as water courses from the distributaries to the proprietors laterals and/or the plots themselves.
6. Land leveling of approximately 71,000 acres.
7. Construction of 30 miles of access roads.
8. Construction of small buildings for expanding the operational capacity of experimental stations.
9. Establishing a 6,000 acre plantation to grow corn and soya bean in a double cropping rotational system.

⁴³Cooperative Republic of Guyana Agreement Between the Mahaica-Mahaicony-Abary Agricultural Development Authority and Sir William Halcrow and Partners. (Appendix "G"--Statement of Work, p. i, February 1, 1978.)

Other aspects of Phase I, as originally planned, called for "compensation to farmers for crop and property damage, including relocation of farmers" and the establishment of a farming pattern to exploit the area's flood control and drainage and irrigation program.⁴⁴ The pattern is given in Table 6-4.

Table 6-4
Farming Pattern: Project Area

Crops	Acres Under Flood Control	Acres With Secondary and Tertiary Drainage and Irrigation
Rice	70,790	70,790
Sugar Cane	15,525	---
Coconuts	1,500	---
Ground Provisions	300	---
Improved Pastures	21,000	5,000
Corn/Soya Beans	6,000	6,000
Total	115,115	81,790

Source: A Sub-Regional Plan, p. 46.

Upon learning that identified funds were insufficient to finish the project, a review of the scheme was completed in August 1979 by

⁴⁴Ibid., pp. i-ii.

officials of the State Planning Commission. From this review, four alternatives were developed. Except for construction costs, the costs for machinery and equipment (G\$10.2mn), engineering and administrative supervision (G\$11.53mn), and agricultural development (G\$4.13mn) were the same. Construction and total costs for each alternative follow:

<u>Alternatives</u>	<u>Construction (G\$mn)</u>	<u>Total Costs (G\$mn)</u>
A	237.86	263.72
B	198.52	224.37
C	131.85	151.71
D	159.82	185.68

Considered most viable, Alternative "D", with an internal rate of return of 12.08 percent, "was expected to provide full flood control and drainage and irrigation works"⁴⁵ to the project area. However, secondary drainage and irrigation works would be excluded from this accounting. They, in turn, would be constructed under Force Account. Works under Force Account fall under the MMA-ADA's responsibility and control. Under this account, the Authority may ". . . use . . . [its

⁴⁵MMA (In-House) Report on Revised Scope of Work, State Planning Secretariat, [n.d.], p. 1. Note: The internal rate of return is a discount rate that, "in a sense, represents the average earning power of the money used in the project over the project life." See J. Price Gittinger, Economic Analysis of Agricultural Projects (Baltimore: The Johns Hopkins University Press, 1980), p. 71.

employees or employees] of a Ministry to construct a work with or without the supervision of an independent contractor on consultant."⁴⁶

Based upon estimates developed in 1977, the original works outlined on page 124, were expected to yield an internal rate of return of 11.9 percent. Their cost, assuming that construction started in 1980, was estimated at US\$120.9mn (G\$309mn). In comparison, the lowest bid of US\$155.6mn (G\$397mn), submitted by Ballast Nedam N.V., and Lareco B.V., joint-venture contractors of the Netherlands, was 23 percent above the estimate for the original works.⁴⁷ Evidently additional funds were needed if the project, as originally planned, were to proceed. An effort to secure supplemental funds from the IDB was unsuccessful. More importantly, the IDB had advised that the MMA-ADA undertake the project within the existing funding arrangements. Thus, on June 6, 1980, agreement was reached with Ballast Nedam and Lareco for a reduced scope of works estimated at G\$104,245,881. Work on Phase I commenced on June 16, 1980, and was completed in August, 1983.

Major Works

Reduced Scope of Works. Given cost escalation and the inability to finance the MMA project as originally planned, the following main, permanent works were undertaken in Phase 1:

⁴⁶Agreement between MMA-ADA and Sir William Halcrow and Partners, p. 2.

⁴⁷Mahaica-Mahaicony-Abary Agricultural Development Authority (Financial Review, March, 1980) Sect. 3.2, p. 6., and MMA (In-House) Report, p. 2.

1. the conservancy dam (35 miles long)
2. the main canal (32 miles long)
3. the 7-door sluice
4. the 5000 foot spillweir
5. the main canal head regulator
6. the pumping station at Trafalgar/Union, and
7. 11 miles of the 30 mile all-weather road.

All secondary and tertiary works--for example, branch canals and distributory trenches--were omitted from the project. Thus truncated, the internal rate of return for the project is now 6 percent. In other words, the average earning power of the funds used for the reduced works of Phase I will be less by approximately 50 percent over the life of the project. Finally, taking consultancy expenses, machinery cost, and cost-overruns into account, the cost of the permanent works was approximately 50 percent of the US\$72.6mn (G\$200mn) funding arrangement for the project.

Conservancy Dam. Constructed under Force Account, the 35 mile conservancy dam was completed in 1981. A mechanism for flood control and irrigation, it traps water in the highlands, on the right and left banks of the Abary River. Thus trapped, the water is channeled via a main canal to the rice lands. Apart from delays caused by inclement weather, progress during construction was slow, primarily because of (a) difficulty in procuring spare parts for excavation and earth moving machines; (b) delays in repairing bulldozers, which, in turn,

reduced the efficiency of other machines used in related tasks; and
(c) disappointing performance by local contractors.⁴⁸

Canals: Main, Branch, and Facade. From Belladrum, West Coast Berbice, to the conservancy dam, the main canal stretches for 32 miles as it provides irrigation for the project area. At the conservancy dam it is adjoined on its right by a seven door sluice, and on its left by a 5000 foot spillweir. Two branch canals are to be connected to the main canal. They will supply fresh water to the Bel-Air/Catherina's Lust area, the Waterloo Jib/Cotton Tree area, and to the backlands of West Coast Berbice.⁴⁹ In addition to the main and branch canals, a 22 mile facade canal is to be constructed from Foulis to D'Edward, West-Coast Berbice. It will drain the coastal area, especially the high reef along the rail and road bed.

7-Door Sluice. Completed February 19, 1980, the 7-door sluice facilitates the damming of the Abary River "immediately south of the conservancy dam." It provides flood control along the banks of the Abary River as it controls water flows from the conservancy. Its discharge capacity is 3,000 cubic feet per second (1 cu-sec is equivalent to 22,400 gallons of water per hour).⁵⁰ This work is a component of the area's irrigational scheme in that (a) it provides

⁴⁸MMA News Letter, Issue No. 5, p. 2.

⁴⁹MMA (In-House) Report, p. 3.

⁵⁰MMA News Letter, Issue No. 5, p. 3.

fresh water for farmers on the left bank of the Abary River,⁵¹ and (b) it controls the river's salinity levels downstream with discharges at intervals of 50 cubic-seconds (1,120,000 gallons of water per hour).⁵² Although the 7-door sluice provided an opportunity for Guyanese to demonstrate their technical skill and expertise (it is "the largest hydraulics structure ever designed by local engineers and built by a local civil contractor"),⁵³ it points up the overriding problems of delays and cost-overruns that have bedeviled the project. For example, the consulting engineers were engaged by the Hydraulics Division of the Ministry of Agriculture, in February, 1975, and the contract for building the sluice was awarded to the construction engineer in February, 1976. This work should have been completed in two years, by September, 1978. As indicated above, it was completed in February, 1980. Given shortages of material such as cement and crushed stone, and other logistical problems such as poor river transportation, a seventeen month lag time may not seem long. However, the resulting delay was responsible for a cost increase of approximately 15 percent above the original contracted price.⁵⁴

Spillweir. In conjunction with the conservancy dam, the Spillweir, a 5000 foot long concrete conduit (located about seven miles from Copeland on the Abary River, and south of the 7-door

⁵¹MMA News Letter, Issue No. 1 (1980), p. 1.

⁵²MMA News Letter, Issue No. 5, p. 2.

⁵³MMA News Letter, Issue No. 2 (1980), p. 2.

⁵⁴MMA News Letter, Issue No. 1, p. 1.

sluice) helps control floods in the region. With a discharge capability of 20,000 cubic feet of water per second, it reduces the conservancy's water level when it swells above storage capacity. The spill from the conservancy is channeled by "sheet overland flow" via the spillweir into the Berbice River.⁵⁵ Construction of this work was finished in May, 1980.

Head Regulator: Main Canal. In the original works one head and four intermediate regulators were contemplated. The main canal head regulator is a 5-door structure that adjoins the conservancy dam about two miles from Copeland. It allows water flow from the conservancy to the main canal. Even at low conservancy water levels, the head regulator receives its full designed discharge of 2,000 cubic feet of water per second.⁵⁶ Thus the head regulator, like the intermediate regulators, enhances irrigation in the project area.

Pumping Station: Trafalgar/Union. Of two pumping stations originally contemplated, only the one at Trafalgar/Union was constructed. With a discharge capacity of 750 cubic feet of water per second, this station supplements the kokers (local or village sluices) in draining the coastal areas and discharging their waters into the Atlantic Ocean.

⁵⁵MMA News Letter, Issue No. 2, p. 2.

⁵⁶MMA News Letter, Issue No. 5, p. 2, and Programme (Establishment of the Abary River Control Sluice), February 19, 1980, p. 3.

All-Weather Road. The length of the all-weather road should have been 30 miles (stretching from Onverwagt, West Coast Berbice, to the Abary River, following the main canal and "passing through at the back of the Bush Lot area to Bel Air"). Under the reduced scope of works, however, only 11 miles of this road were constructed.

Truncated Works and Phase II: The Perspective

The flood control works of Phase I were completed by December, 1981. (The works that were constructed under the reduced scope are now termed Stage I of Phase I. The secondary and tertiary works that were eliminated are termed Stage II of Phase I.) The reduced scope of works were commissioned on August 17, 1983. Although the main works of Phase I are completed, benefits to farmers from drainage and irrigation are marginal at best since there are no secondary and tertiary connections to the main works. Furthermore, construction of Phase II (water control of the Mahaicony River) was expected to begin in 1983. The reality, however, is that Phase II, due to a lack of funding, will not be constructed before 1986, if then.

Before construction of Phase II is undertaken, the truncated Phase I works must be completed. The major works to be executed in this stage are:

1. the construction of 222 miles of secondary drains and 210 miles of secondary canals,
2. the construction of 400 hydraulic structures,
3. the construction of 7,000 field inlet and drainage structures,

4. the construction of a flood embankment 14 miles long,
5. the construction of 11 miles of all-weather road, and
6. the construction of 2 public road culverts and one bridge.

Construction of these works has been stymied, primarily because the United States government blocked a loan of approximately US\$38mn from the Inter-American Development Bank to fund them. "Under IDB rules, the U.S., acting alone, can prevent the use of the bank's low-interest money from the Fund for Special Operations for any credit" ⁵⁷ US\$10mn of Guyana's loan was to come from the Fund for Special Operations. In addition, total financing for the project had to be assured, and this required a two-thirds majority vote in the IDB. The U.S., with approximately 35 percent of the vote, held a veto over the project and exercised its veto by casting a dissenting vote. (See "The New Loan," Chapter 10.)

Phase II, estimated at approximately US\$53mn, in the expectation that the IDB would provide US\$46mn and the Government of Guyana US\$7mn, encompasses three principal works or related schemes:

1. continuation of the conservancy dam for another 25 miles from the Abary River to the Mahaicony River,
2. extending the main irrigation canal by 12 miles, and
3. preparing an additional 60,000 acres of land for cultivation, not counting cultivated areas under the Mahaicony-Abary Rice Development Scheme.

⁵⁷The Wall Street Journal, Friday, August 19, 1983, p. 8.

IDB funding for Phase II is not likely soon. In fact, the U.S. government, contending that "Guyana shouldn't get an IDB loan for water-control projects and other facilities to increase rice production so long as . . . [it] . . . subsidized rice growers, and controls its rice exports through a government marketing corporation,"⁵⁸ has threatened to block the loan request. The U.S. government's determination to block IDB's funding for Phase II is underscored by the fact that it has since canceled a US\$20mn loan for further development of the rice industry.

The Failure of Integrated Development

Integrated rural development must focus on interrelationships between (a) development of agricultural production, (b) development of human resources, and (c) development of non-agricultural production and services. It must recognize "the interdependencies between [these] three major sectors of the rural economy."⁵⁹ It must also seek to expand the human, material, and social resources of the target area in such a way that "the whole family can be involved in action programmes aimed at improving the rural home and habitat."⁶⁰ By participating in development efforts, local residents may be

⁵⁸Ibid.

⁵⁹The Family in Integrated Rural Development (Rome: Food and Agriculture Organization, 1975), p. 14.

⁶⁰Ibid., pp. 27, 37.

encouraged to work for and improve their well-being. They should assume responsibility for building their community.⁶¹

The concept of integrated development is articulated in the Sub-Regional Physical Development Plan and the plan for the Kabawer Settlement Scheme. But integrated development requires much more than articulating the concept. It requires action, coordinating and implementing the three-fold development described above, so that the goals for the project area may be realized.

Now the MMA project, given the current stage of its development, does not, in reality, qualify as an integrated development project. First, with respect to development of agricultural production, the secondary and tertiary works of Stage II of Phase I are yet to be constructed. In the absence of these works, the area's potential to produce will not be realized. Equally important, the Kabawer Scheme (discussed later), an agricultural settlement designed to take advantage of the physical works and to raise farmers' income to the target level of G\$9,000 by 1989, has been, in effect, abandoned.

Second, the MMA-ADA does not have an on-going research and extension program. The GRB, however, does have one at the Mahaicony-Abary Rice Development Scheme (MARDS). At MARDS efforts are directed toward raising farmers' productivity in the region. These efforts, like those at the Kuru Kuru Cooperative College, and agricultural education in various curricula (from primary school to the University

⁶¹The above ideas seem to reflect Uma Lele's position on "The Concept of Rural Development." See her The Design of Rural Development: Lessons from Africa (Baltimore: The Johns Hopkins University Press, 1979), pp. 19-21, 228.

of Guyana), are intended to enhance human resource development in the agricultural sector. In particular, cooperatives are expected to mobilize human resources in the project area. Yet how they will do so is a question not addressed. Furthermore, since cooperatives have not assumed a leading role in the economy (and certainly not in the region), one must question their ability to mobilize human resources successfully.

Third, with respect to development of non-agricultural production and services, we repeat the following points made earlier in this chapter: (a) "sufficient use has not been made of even simple, available technology to expand into secondary processing of primary products or into the manufacture of simple agro-based products," (b) there is very little, if any, linkage between the region's emphasis upon agricultural production and the generation of industrial activity, and (c) although the plan for the region calls for "substantial investment in food processing . . . garment manufacturing . . ." and so forth, only a small part of this plan has been implemented.

With regard to development of services, the provision of social infrastructure in the area falls under the portfolio of major ministries such as Health, Housing, Education, and Transportation. The Regional Minister, however, is expected to co-ordinate these services. Thus it is possible for conflicts to arise between the Senior Ministers or members of their staffs and the Regional Minister, and Senior Ministers and their staffs may resent the Regional Minister for meddling in their affairs.

This apart, support services in the project area are generally poor or inadequate. Reflecting on this situation, one commentator opined, "Who wants to go in there and stick out the inconvenience?" Estimates, for example, indicate that "one third of all houses are in poor or in critical condition."⁶² By 1985, housing needs in the area will require an increase in housing construction of approximately 50 percent, a minimum annual increase of approximately eighty residential units. Moreover, the cost of housing will exclude 40 percent to 50 percent of rural households from "participating in the private house building sector." Compounding this problem is the fact that low earnings combined with limited collateral make rural households poor candidates for private sector housing loans.⁶³

In promoting housing development, the MMA-ADA may (a) acquire, prepare, and distribute residential plots of land to agricultural, service, and industrial workers; and (b) "conjointly finance and develop residential infrastructural, public services, and facilities in co-ordination with the various sector agencies."⁶⁴ These options were geared to the MMA-ADA's settlement policy. However, the MMA-ADA has deemphasized its settlement scheme, and one further questions whether it has the funds to "conjointly finance" such services.

Schools in the project area are adequate but already experience some overcrowding. Health and hospital services need to be improved

⁶²A Sub-Regional Plan, pp. 111, 126.

⁶³Ibid., pp. 116-117, 121.

⁶⁴Ibid., pp. 193-194.

and expanded but their operational cost per capita is high. The operational cost for district hospitals and health centers was approximately G\$10,000 and G\$3,000, respectively, in 1979. Potable water supply in the coastal area is inadequate; and, except Hyde Park and Gordon Table, the riverain areas do not have this service. Plans for upgrading water supply call for rehabilitating existing wells and drilling new wells, installing storage tanks, booster pumps, and service connections, and making additional installations to serve residents in the project area. Electricity and telecommunication services are deficient. Transportation problems include (a) poor access and long distances to farms, especially inland and in the riverain areas; (b) frequent changes in the system for trans-shipping agricultural produce; (c) inadequate off-loading facilities; and (d) a lack of integration between water and land transportation at trans-shipment points.

Again, funding for these services are to be provided by the sector ministries. In fact, such services will have to be integrated in the sector ministries' plans for the nation. Should they be given priority or should they be provided according to some scheme to ensure regional balance? And when will they be provided? Should they await the availability of external funds? These questions have not been properly addressed in planning at any level.

In sum, then, although plans for the MMA project speak of integrated development, such development is no closer today than at the time those plans were written. In fact, the MMA project is progressing, but not as envisaged.

CHAPTER 7

THE KABAWER SETTLEMENT AND THE SECOND GUYANA RICE MODERNIZATION PROJECT

The Kabawer Settlement

Introduction

"[P]lans do not implement themselves . . . specific measures must be adopted if . . . [they] . . . are to be converted from expressions of aspiration to programs of action" ¹ In this sense, development planning in most third-world countries is criticized for being strong "on thinking things out" but weak in "getting things done." Put differently, the major problem in development planning is implementation, not formulation.

Apart from internal consistency, and technical and economic feasibility, a good plan must ultimately be evaluated in terms of project execution. Deficiencies at this stage often stem from the fact that goals are unrealistic, especially when viewed against committed resources. Thus resource mobilization is critical for successful project execution.

The Kabawer Settlement Scheme provides support for this criticism. The plan for the settlement suggested that the Authority could "finance all aspects of development through financial aid and/or grants which can be amortised by repayments charged to the settlers

¹ Albert Waterston, Development Planning: Lessons of Experience (Baltimore and London: The Johns Hopkins University Press, 1979), p. 335.

over a period of time,"² but it failed to discuss the sources from which financial aid and/or grants will be provided. Alternatively, the MMA-ADA

could approach the various sector Agencies of Central Government to provide the infrastructure and other facilities which are required for the development of the Kabawer Settlement [T]he finance for sector projects will come from the annual allocations of Central Government Agencies.³

Here however, the plan cautions that "many sector agencies tend to have their own priorities and . . . are severely restricted by small annual allocation of expenditures."⁴

Selected farmers were to have been allocated land for a homestead and an agricultural farm that was designed to raise the farmer's net income to G\$9,000 per annum. The failure to implement the Kabawer Settlement Scheme means that many small farmers in the project area will be denied the opportunity to enhance their income.

Settlement Strategy and Physical Development

The Kabawer Settlement Scheme, like development proposed for the principal existing residential areas, has three development goals. These are: (a) to promote optimum population distribution; (b) to develop urban and rural residential systems based on spatial hierarchy; and (c) to provide "a balance in job opportunities, social amenities,

²Kabawer Settlement Plan, p. 67.

³Id.

⁴Id.

and facilities." Against these objectives, two strategies have been formulated. The first, despite sparse population and high per capita cost of services, is to reinforce the linear pattern of ribbon development along the main coastal road. The second aims to develop inland settlements. The principal residential areas in the sub-region are expected to develop as follows:⁵

Onverwagt/Fort Wellington. The Onverwagt/Fort Wellington community has been identified as the sub-region's principal Administrative and Service Center. Located in this community are the headquarters of Ministerial Region No.3 and the MMA-ADA. With an expected population of approximately 20,000 to 25,000 persons by the year 2000, development in the Onverwagt/Fort Wellington area will be programmed along center-periphery principles. This area then is expected to "provide the highest level of services and facilities to meet the needs of the entire sub-region: technical and vocation schools, sub-regional hospital and sub-offices of Central government agencies, commercial center with its permanent market, banking and insurance facilities, sub-regional sports complex, warehousing, etc." It will be linked to an industrial satellite 4 or 5 miles away where "heavy industrial, storage and processing facilities" will be located.

Mahaica. The Mahaica area, like Mahaicony and Rosignol/Blairmont, will be developed as an Intermediate Industrial and Service Center with a small market area. Growth will center around the node

⁵A Sub-Regional Plan, pp. 177, 105, 173, 167.

at the junction of the Mahaica River and the Cane Grove Branch and East Coast Demerara Public Roads. From this node services will be provided for the hinterland. The node will also serve as a point from which produce from the hinterland will be transhipped to Georgetown, Guyana's capital.

Mahaicony. Development in the Mahaicony area is expected to parallel that of Mahaica--an Intermediate Industrial and Service Center, and nodal development at the junction of the Mahaicony River and the Mahaicony Branch and East Coast Demerara Public Roads. While the Mahaica area services Cane Grove (an inland residential/industrial satellite), the Mahaicony area services Burma (an inland rice processing center).

Rosignol/Blairmont. The Rosignol/Blairmont area is expected to have a population of approximately 21,000 persons by the year 2000. Situated on the left bank of the Berbice River, across from New Amsterdam, Guyana's second largest coastal town, Rosignol is the terminal point of the East Coast Demerara/West Coast Berbice Public Road. Four miles downstream from Rosignol is Blairmont. Development in this area will hinge around a "sub-regional port which would handle all bulk agricultural commodities . . . imported to or exported from the sub-region"

Given the objectives of the Kabawer Settlement, which are--

1. to initiate a new settlement by encouraging farmers to live in the area and cultivate lands which would benefit from the Water Control Project;

2. to create additional employment opportunities and to achieve a better spatial distribution of the sub-regional population;

3. to provide land to farmers who have been displaced by drainage and irrigation and other infrastructural works resulting from the Water Control Project;

4. to provide farmers who have small and fragmented holdings with the opportunity to consolidate their holdings into one economic unit; and

5. to provide economic size holdings to new farmers who are desirous of settling in the area--

the planners developed three spatial options.

Option 1: Ribbon development running North/South along the main road and canal;

Option 2: Nucleated settlement with one center;

Option 3: Nucleated settlement with two smaller centers than that in Option 2.

Common to each option is a large service center of 275 acres that, among other services, is expected to provide housing for the settlement's nonagricultural population.⁶

Table 7-1 outlines the characteristics of these options against four constraints: (a) maximum home-farm return journey, (b) maximum return journey to basic facilities and services, (c) additional

⁶Kabawer Settlement Plan, p. 11.

Table 7-1

Characteristics of Options

Constraints	Option No. 1	Option No. 2	Option No. 3
1. Maximum home-farm return journey	Five miles with more than 90% of the farmers living within 2 miles and 60% within 1 mile of their farm.	Eight miles with more than 50% of the farmers living within 2 miles of their farms.	Twelve miles with about 35% of the farmers living within 2 miles of their farms.
2. Maximum return journey to basic facilities and services	Three miles with 60% of the farmers living within one mile of the main service center.	Three to four miles with 40% of the farmers living within 2 miles of the main service center.	Three miles and with more than 50% of the farmers living within one mile of the main service center.
3. Additional infrastructure i) Access roads ii) Bridges	No additional roads or bridges required. All farmers have direct access to main road.	Over four miles of access roads required.	Over six and a half miles of access road required.
4. Utility services i) Water supply ii) Electricity iii) Telephone	Seven and a half miles Additional five miles Additional five miles	Eleven and a half miles of water mains Additional seven miles Additional seven miles	Seven and a half miles Additional seven miles Additional seven miles
			Four bridges required.

Source: Adapted from Table 2-1, Evaluation of Options, Kabawer Settlement Plan, p. 16.

infrastructure required (e.g. access roads and bridges), and (d) utility services available and required (e.g., water supply, electricity, and telephone).

Option 2 has two main drawbacks. First, it will not reinforce "group interaction and social integration [that is viewed as] an essential requirement for community development." Second, like the four principal residential areas of the sub-region, its per capita cost for services and utilities will probably be high. Options 1 and 2 require additional infrastructure in roads, bridges, water supply, and telephone service. This means that they will incur greater cost. Given the advantages and disadvantages, Option 1 was recommended as "best suited for the . . . Kabawer Settlement."⁷

Location and Design. Covering 11,700 gross acres, the Kabawer Settlement is located east of the Abary River and west of Blairmont sugar estate. It is expected to accomodate approximately 5000 persons by the year 2000. Its population should include 300 farmers (the average farm family comprising approximately 6 persons) and about 60 nonfarm support (industrial/commercial) families.

The Kabawer Settlement will combine four elements. (1) There will be an Industrial and Service Center, "the highest level of center proposed for the inland and riverain areas," to undertake rice processing, milling and related activities as well as research. The center will also provide public services, community, and commercial facilities. Then the scheme will provide (2) homestead plots (124' x

⁷Ibid., p. 15.

880' or 2.5 acres) for farmers' homes and for the intensive cultivation of crops such as bananas, plantains, black-eye peas, and vegetables; (3) nonfragmented farm plots for rice cultivation in close proximity to the homesteads; and (4) two neighbourhood centers outside the homesteads to provide lower order services for residents.

Central Service Center. Located one mile west of the main canal, the Central Service Center covers 266 acres. It is designed to provide public services, community, and commercial facilities for the settlement, and housing for the nonagricultural population. Within the service center is an industrial zone comprising 66 acres. Of these, 20 acres are earmarked for rice milling and storage, 6.5 acres for related activities, such as a workshop, and 39.5 acres are held in reserve for other industrial activities.

Homesteads. There are 268 homestead plots numbered in numerical order, as are the paddy plots. Under this system, each farmer is given a homestead plot with the same number as his paddy plot. The objective here is to minimize the home/farm return journey. Situated to the north of the Service Center are 66 homestead plots with a maximum home/farm return journey of 5 miles, and a maximum home/service center journey of 3 miles. To the south are 153 homestead plots with a maximum of 4 miles for the home/farm return journey, and 8 miles for the home/center return journey. To the west are 49 homestead plots with return journeys of 6 miles and 3 miles, respectively.

Paddy Fields. The paddy fields cover 8,040 acres--68 percent of the total settlement area. Each field, of 30 acres, is divided into 2 subfields (1,500' x 440'). These lie in an east-west direction and are to be irrigated and drained by secondary canals and trenches running in the same direction. The secondary canals will adjoin the main canal which flows in a north-south direction.

Dairy Farms. Along with the homesteads and their paddy fields, 1200 acres--10 percent of the settlement area--are to be allocated to 23 dairy farms. Covering 52 acres, each farm will have a potential carrying capacity for a herd of about 100. Each farm will also have a 2.5 acre homestead plot where cash crops will be cultivated.

Reserve Land. Assuming that "spin-off effects" from programmed development may lead to future demand for land, 164 acres are held in reserve. This land bank may be used to accomodate an additional population of 3,000, or to settle farmers who cultivate land outside the settlement but wish to reside within it.

Land Use, Cropping Pattern, and Production. Since land use, cropping pattern, and production in the Kabawer Settlement are designed to enable the farmer to realize an income of G\$9,000 per annum, realization of the target income must be a yardstick for measuring the settlement's success.

Land use for the settlement is summarized in Table 7-2.

Table 7-2
Land Use Summary

Activity	Gross Acres	Percent of Settlement
Rice	8,040	68.7
Cattle	1,196	10.2
Homestead Plots	670	5.7
Central Service Center	266	2.3
Neighbourhood Centers	48	.4
Wayleaves*	1,480	12.7
Total	11,700	100.0

*These are access routes and pathways for the drainage and irrigation network.

Source: Table 5-1, Land Use Analysis, Kabawer Settlement Plan, p. 33.

To achieve the target income rice will be double cropped. Homestead plots, absorbing off-season family labor, would supplement the farmer's income from rice cultivation or dairy farms. An estimated 3,600 acres should have been under cultivation by 1982; thereafter cultivation would increase to a maximum of 8,520 acres. Estimates of paddy production for 1982 to 1984 are presented in Table 7-3. Increased paddy production is expected to result from greater yields from improvements in drainage and irrigation, adequate inputs such as fertilizer, better farm management, and increased acreage.

Table 7-3
Estimated Paddy Production, 1982-84

Season, Acreage, and Output	Years		
	1982	1983	1984
Spring			
Acres	1,600	3,600	6,816
Bags*	10,000	90,000	170,000
Autumn			
Acres	2,000	5,000	8,520
Bags*	50,000	135,000	213,000
Total			
Acres	3,600	8,600	15,336
Bags*	60,000	225,000	384,400

*140 lbs. each.

Source: Adapted from Table 1-2, Estimated Incremental Paddy Production for the Proposed Kabawer Settlement Scheme, Kabawer Settlement Plan, p. 6.

Production of Rice: Costs and Returns. The basic assumptions are:

1. Paddy fields would benefit from full project flood control, drainage, and irrigation.
2. Average production per acre is 25 bags of 140 lbs. each.
3. Annual cropping intensity is 180 percent.
4. Machinery input for hire may be acquired from the MMA-ADA.
5. Other inputs--for example, fertilizer and seed--would be available in adequate quantities; and
6. Average paddy price (1979) is G\$20/bag.

Given these assumptions, yearly production costs per acre are shown in Table 7-4 and returns in Table 7-5.⁸ Yearly income from cultivating 25 acres of rice would amount to G\$7,700, or 86 percent of the target income.

Production on Homestead: Costs and Returns.⁹ Cash crops grown on a homestead provide subsistence for the family unit and supplement income generated from rice cultivation or dairy farms. Eight crops have been considered for homestead cultivation. Their production cost and returns are given in Table 7-6.

⁸For further details, see Appendix A, "Production: Costs and Returns on Rice," pp. 253-255.

⁹Kabawer Settlement Plan, pp. 19-20.

Table 7-4
Rice Production Costs

Land preparation	G\$ 56	
Seed	25	
Fertilizer		
Nitrogen	21	
Triple Super Phosphate	10	
Plant protection		
Herbicides	4	
Insecticides	12	
Harvesting, at G\$2.00 per bag	50	
Transport, at G\$1.00 per bag, average	25	
Hired Labor	22	
Family Labor	0	
	225	
10 percent for physical contingencies	22	
Total		G\$247
Interest on working capital at 12 percent per annum, for six months	15	
		G\$262
Total cost per annum at 180 percent intensity (G\$262 x 1.8)		G\$472

Source: Kabawer Settlement Plan, Appendix 1, Paddy Production Costings, p. 1.

Table 7-5

Rice: Returns Per Acre

 Per acre returns to rice cultivation

 (25 bags per acre at (G\$20.0) with
 (1.8 intensity))

G\$900

Net returns per acre

Gross returns¹⁰

G\$900

Less:

Costs Per Acre

G\$472

Operation and maintenance fee
to MMA/ADA

G\$116

Rent at \$4 per acre

G\$ 4

G\$592 G\$308

 Source: Kabawer Settlement Plan, Appendix 1, Paddy Production
 Costings, p. 4.

¹⁰For further details, see Appendix A, "Production: Costs and Returns on Rice," pp. 253-255.

Table 7-6
Costs and Returns for Homestead Crops
(C\$ per acre)

Crops	Gross Output	Variable Cost*	Gross Margin**	Operation and Maintenance	Land Rent	Net Margin***	Family Labor Days	Returns per Family Labor
Bananas	1,050.00	591.00	459.00	116.00	4.00	339.00	53.5	6.34
Plantains	1,900.00	1,123.00	777.00	116.00	4.00	657.00	47	13.98
Black-eye Peas	520.00	211.00	309.00	116.00	4.00	189.00	32.5	5.82
Sweet Potatoes	1,760.00	422.00	1,338.00	116.00	4.00	1,218.00	58	21.00
Tomatoes	3,540.00	1,854.40	1,685.60	116.00	4.00	1,565.60	101	15.50
Cabbages	2,700.00	1,297.45	1,402.55	116.00	4.00	1,282.55	79	16.23
Carrots	1,350.00	928.60	421.40	116.00	4.00	301.40	63	4.78
Eschallots	3,100.00	1,326.80	1,773.20	116.00	4.00	1,653.20	83	19.92

*Excludes return to family labor (eight hour man-day).

**Gross output minus variable costs.

***Gross margin minus operation and maintenance costs and land rent. It assumes neither double nor tripple cropping.

Source: Kabawer Settlement Plan, pp. 21-23, and Appendix III, Possible Crops for Homestead Plot Production, pp. 2-16.

Planting, fertilizer application, and plant protection costs vary widely for the crops shown in Table 7-6. Bananas, plantains, tomatoes, and cabbages have much higher planting costs than black-eye peas and sweet potatoes. Costs for the application of fertilizer to crops such as carrots, cabbages, tomatoes and eschallot are high relative to those for bananas and black-eye peas. Likewise, tomatoes and eschallot have higher plant protection costs than black-eye peas, sweet potatoes and carrots. Family labor, which averages 65, eight-hour man-days, with a high of 101 man-days in tomato cultivation and a low of 32.5 man-days for black-eye peas, is considered a non-cost input. Returns per family labor day is highest in eschallots--approximately G\$20.00--while carrots have the lowest returns, of approximately G\$4.80. For all crops, the average return per family labor day is G\$13.00.

Dairy Units: Costs and Returns. Apart from the sale of stock, income from dairy farms will be generated from milk production. For all such farms annual milk production is expected to exceed 90,000 gallons. Annual milk production for a farm is expected to average 4,050 gallons by 1987.¹¹

Dairy production and costs have been estimated for two cases. Case No. 1 assumes that the dairy unit is settled by a cattle owner and thus whould have been fully operative in 1983. Studies suggest, however, that this unit would operate at a loss of G\$6,011 per annum

¹¹Kabawer Settlement Plan, pp. 20-21, and Appendix B, "Production: Cost and Returns on Dairy Farms," pp. 256-259.

(G\$120 per acre per year). Case No. 2 reasons that by 1987 a dairy unit may earn a profit of G\$4,568 per annum (G\$91 per acre per year). This requires a stocking rate of 1 animal per 1.2 acres--approximately 42 animals--and lactation that averages approximately 500 gallons from 85 percent of the cows. Annual returns and operating costs for Case No. 2 are summarized as follows:¹²

Annual Sales

Animals	G\$16,305	
Milk	G\$24,000	
Total		G\$40,305
Annual Operating Cost		G\$35,737
Net returns per annum		G\$ 4,568
Net returns per acre		G\$91.36

Case No. 2 has been termed "optimistic"--a best case scenario. Even with this optimistic picture, annual income from a dairy unit would be approximately 60 percent of that from rice cultivation. Similarly, income from the dairy unit would only be about 50 percent of the target income.

Family Selection Criteria. The Kabawer Settlement is expected to accomodate three kinds of settlers: those who have been displaced by the physical infrastructure, farmers who prefer land consolidation to fragmented plots, and new farmers. For these families, and especially for the latter, eight settlement criteria have been suggested:

¹²Details for Case No. 1 are excluded since it is not economically feasible.

income, family size, occupational status, farming experience, land holding, financial status, geographical location, and work preference. To minimize "any possible controversy in the selection process," it is further suggested that four of the criteria--income, family size, farming experience, and work preference, be allocated a majority of weighted points, between 70 and 75 percent; the remaining 25 to 30 percent to be divided equally among the other criteria. In addition, it is recommended that the MMA-ADA assume responsibility for the selection process.¹³

Issues and Problems

Settlement Cost. Under the original funding arrangement approximately G\$185mn was pledged to the MMA project. Because of cost overruns, a reduced scope of work was undertaken at an estimated cost of G\$104.25mn. Because the MMA-ADA views the project in terms of integrated development--encompassing physical infrastructure, agricultural development, settlement, and supporting community and social services--the cost of such development is in fact much more than that for the reduced works. One must consider the cost for physical infrastructure, the initial cost for social and public services, and also maintenance cost for both physical and social overhead capital. The estimated cost of the Kabawer Settlement, as shown in Table 7-7, is 65 percent of that for the reduced works.

¹³Kabawer Settlement Plan, p. 31.

Table 7-7

The Kabawer Settlement: Estimated Cost

Category	G\$mn
Roads	38.00
Land leveling	4.00
Cadastral surveys	.14
Public services and community facilities	7.55
Utility services and infrastructure	2.75
Housing development	14.00
Transportation	1.18
Total	67.62

Source: Kabawer Settlement Plan, Summary of Proposals and Recommendations, p. xiii.

Questions concerning financial feasibility must be addressed. How much of this cost should be borne by the central government, sector ministries, or central government agencies? And how quickly might such funds be available? How much development expenditure will each settler be required to undertake? It is assumed that settlers will finance the construction of their homes, at an estimated cost of G\$40,000 per home, and that initial on-farm dairy investment would be about G\$77,000. The small farmer does not have such funds. Furthermore, he might not have assets that could be used as collateral against loans. On the other hand, settlers could form cooperatives or self-help communities and through these reduce construction cost. It is also possible that some farmers may be able to secure loans from the Guyana Agricultural and Development Bank or the Cooperative Bank.

Like the physical infrastructure, the importance of funding the settlement cannot be overstressed. Indeed, inadequate public services and community facilities may dissuade people from settling in the area. Bad roads and poor transportation, along with inadequate secondary drainage and irrigation for the paddy fields, would adversely affect rice cultivation and frustrate farmers' hopes of realizing the target income.

Capital expenditure for the physical infrastructure and the Kabawer Settlement is the subject of an on-going debate. The gist of the argument is that (a) historically, rice settlement schemes such as Black Bush Polder have failed to generate expected returns, (b) funds for such schemes have been misallocated in that they have been used to

subsidize inefficient petty and small scale farming, and (c) the MMA project including the Kabawer Settlement would be uneconomic--as are the other schemes.

Target Income: Related Features. Full project improvement in drainage and irrigation is a pre-condition for achieving the target income. But even if this pre-condition is met in subsequent years, it will not guarantee that the target income will be realized. Domestic and foreign demand for rice and reliable marketing and distribution channels will dictate, in part, the extent to which the target income is reached. Selling poses no problems since all rice produced could be sold. Shortages in supply, however, still plague the industry. Although the physical infrastructure may prevent flooding of the paddy fields, the truncated works leave them without adequate drainage and irrigation.

Homestead produce may be sold in inter-village trade or in the urban markets--Georgetown, New Amsterdam, and Linden (formerly McKenzie/Wismar) by family members or huskers (local middle-men). Income from this produce could be further stabilized if, in addition, it can be sold to the Guyana Marketing Corporation. The GMC, in turn, may be able to exploit or cultivate markets in the Caribbean as well as in the Guyanese and West Indian communities in New York, Washington, London, and Toronto. Homestead produce may also be used as inputs for small scale, labor absorbing processes such as canning and preserving, and further increase family income.

Selection of Settlers. Some farmers who cultivated 25 acres or more have earned approximately G\$7,200. Thus a farmer who earns less than the target income can present a case of need to earn a better income. Lower income, however, may not necessarily indicate greater need. This question must be viewed against family size as well as income. Further, family size is considered primarily in terms of a labor unit, raising the following question: what weight should be given to each of two families having the same numbers but differently composed? Furthermore, while owners who in the past sublet their land may be frowned upon during the selection process, such individuals may have been acting quite rationally if it were profitable to lease a portion of their land.

Finally, farming experience and attitude--the ability to adjust to a rural environment--are interrelated. These criteria, more than the others, may serve to screen out those who are not good candidates for settlement.

The small farmer seemed quite enthusiastic about prospects for settlement. In fact, by August, 1983, the MMA-ADA had received thousands of applications. Even so, the Authority had not begun to undertake land reform in the settlement area as was expected. More importantly, the MMA-ADA has decided to drop its plans for a small farmer settlement at Kabawer. The principal reason for this decision is that the MMA-ADA does not have the funds to implement the scheme. The MMA-ADA is now considering the possibility of converting the Kabawer area into a dairy belt. It hopes that large cattle farmers

would settle the area because they would be most likely to have the resources to provide whatever infrastructure they need.

Rice II: The Second Guyana Rice Modernization Project¹⁴

The Program

The Second Guyana Rice Modernization Project (Rice II) is an outgrowth of the 1967 Rice Modernization Project (Rice I),¹⁵ which focused on the reorganization and rehabilitation of the rice industry (a) to promote a continued GDP growth rate of 7 percent, (b) to increase rice farmers' income, and (c) to enhance the GRB's competitiveness in the world market and thus to maximize the industry's contribution to export earnings.

¹⁴This section draws upon Rice II, Chapters 4 and 7.

¹⁵On November 27, 1968, the USAID and the Government of Guyana pledged US\$12.9mn and US\$4.6mn to Rice I, which focused on (a) the improvement of "exportable rice varieties and grades to meet the growing competition in . . . traditional markets by other rice producing nations," and (b) the maintenance of paddy quality and reduction of after-harvest losses. By March, 1978, Rice I expenditure was USAID (US\$12.5mn) and GOG (US\$5.6mn). Rice I undertook the following program:

1. A 600-acre rice research station at MARDS.
2. A pure-line seed storage unit at MARDS.
3. Six paddy receiving, drying, storage, and loading centers with a total storage capacity of 51,200 metric tons (one-fifth of annual production).
4. Improvement of paddy transport with 50 special bulk paddy wagons.
5. Additional facilities in Georgetown for receiving and transferring milled rice with a capacity of 8,500 metric tons.
6. Upgrading of government owned milling facilities.
7. Technical training [in rice research techniques and in all phases of management and operations].
8. The consolidation of the management and operations of the Guyana Rice Marketing Board and the Guyana Rice Development Corporation.

Rice I and its success notwithstanding, there was a further need to install facilities and implement other processes such as administrative, financial and technical training at the GRB, to reduce after-harvest losses, to accomodate increased production from new varieties, increased yields, improved drainage and irrigation, and increased acreages, and to improve efficiency in the farm-to-market chain of operations. These, then, are the objectives of Rice II. On the whole, Rice II seeks to develop "an integrated industry-wide processing and marketing system."¹⁶

In August, 1978, funds amounting to US\$22mn--US\$16.5mn from USAID and US\$5.5mn from the Government of Guyana--were pledged to Rice II, which should have been completed in December, 1983. Funds were to be allocated to the project as in Table 7-8.

Paddy losses in the farm-to-storage cycle have been estimated at 10 percent of total paddy volume. Benefits from Rice II, therefore, are expected to accrue from the prevention of after-harvest loss in quality and quantity. New and expanded facilities for drying and storage, which will provide control over moisture content, insects, and rodents, are expected to reduce after-harvest loss by approximately 6 percent. The modern rice mills will reduce the amount of broken rice and improve quality by two grades. Technical training and assistance is expected to ensure a further 1 percent reduction in paddy losses. Overall, protection from loss is estimated at 7 percent and will increase financial returns to the rice industry.

¹⁶Rice II, Chapter 7, p. 1.

Table 7-8

Rice II: Allocation of Funds
(US\$mn)*

Components	USAID		GOG	
	Loan	Grant	Loan	Grant
Five New Drying/Storage Facilities (Arrays of 20' x 100' vertical storage tanks with interstice walls)	9,912		3,847	
Three new ten-ton multi-stage rice mills	1,318		230	
Expansion of six existing drying/ storage facilities	1,702		491	
Rehabilitation of Georgetown facility shipping terminal at GRB	2,068		432	
Technical assistance and Training (GRB)		1,500		500
Totals	15,000	1,500	5,000	500

*US\$1 = G\$2.55

Source: Rice II, Executive Summary, p. vi.

Rice II facilities are located where farms are heavily concentrated to bring maximum benefits to the small farmer. With Rice II, income from rice farming should increase from US\$70 (G\$179) per capita to US\$90 (G\$230) per capita each year. Against this, estimated costs per beneficiary is US\$4.86 (G\$12.39) over the 30 year life of the project.

The MMA project area will benefit from Rice II as follows:

1. Onverwagt Drying and Storage Center. Eight round (24' x 100') concrete tanks are to be constructed at Onverwagt for "active storage;" i.e., for handling and tempering as well as storage. Six (38' x 48') concrete tanks will also be constructed for "quiet storage" after drying and conditioning. The center will have a storage capacity of 12,750 metric tons, and a drying capacity of 100 tons per hour.

2. Multi-Stage Rice Mill. A multi-stage rice mill with milling capacity of 10 tons per hour is earmarked for location adjacent to the drying and storage center. The location of this mill in close proximity to the drying and storage center is designed to engender greater efficiency in the movement of paddy between the two facilities.

3. Expansion of Facilities at MARDS. The existing drying and storage facilities at the Mahaicony-Abary Rice Development Scheme will be expanded with the addition of four 1,233 metric ton capacity storage bins and one receiving pit with a capacity of 480 bags per

hour. Other improvements will include one scale per/vacuum system with a capacity of 1,500 bags per hour, one continuous batch dryer (55 metric tons per hour), and twelve aeration fans (3,500 c.f.m.).

Relationships and Impacts

Rice II is a complement to drainage and irrigation projects which generate development in the rice industry. Such development necessitates "improvements in the downstream functions of the industry"--in drying and storage, milling, transport and shipping, and especially in management at the GRB. While improvements in drying and storage are critical in reducing after-harvest loss and in processing better quality paddy, improvements in milling produce higher quality rice for exports. By locating drying and storage centers and modern rice mills in concentrated farm areas, farmers benefit from lower transportation costs from the reduced distances to storage and milling. They also benefit from lower handling costs between storage and milling.

With improved linkages between markets and production schemes, the rice industry's contribution, including that of Rice II, to the GDP is expected to be approximately 7.5 percent of GDP by 1986. In 1978 rice production in areas now slated for Rice II facilities amounted to US\$13.5mn (G\$34.42). By 1990, production from these areas should be US\$26.5mn (G\$67.58). In the absence of Rice II, earnings are likely to be US\$22.8mn (G\$58.14).

Rice II, at full development, is expected to contribute US\$2.1mn annually in foreign exchange earnings. On the other hand, it will

incur US\$0.6mn for annual operating supplies. The estimated rate of return on Rice II--facilities, training and technical assistance--is 16.5 percent. With cost escalation taken into account, the estimated rate of return is reduced to 15.2 percent. Nonetheless, Rice II is economically viable since the estimated cost of capital in Guyana is 10 percent. In fact, investment in Rice II is evidently more prudent than investment in the reduced scope of works (Chapter 6, pages 127-128) which is approximately 6 percent.

With the installation of Rice II facilities, productivity is expected to increase. In addition to the unemployed and under-employed who will secure jobs in constructing the facilities, 300 people are expected to benefit from permanent jobs in the new rice mills and at the drying and storage centers.

Family income from the small farm is expected to increase since the gross return per bag of paddy would increase from US\$6.84 (G\$17.44) without Rice II facilities to US\$7.36 (G\$18.77) with the facilities, an increase of G\$1.32 per bag. GRB earnings are estimated to reach G\$5mn annually by 1990. This would be realized from increased receipts for better quality and greater volume of rice sold in the domestic and foreign markets.

Paddy flows between the farmer and miller may be conditioned by communal or familial relationships. The miller, for instance, may own paddy fields, a tractor, and/or a combine. He may rent paddy plots and machinery to the farmer who, in turn, may feel obligated to sell him his crop. Rice II will probably change or modify these

relationships. If farmers suffered abuses in dealing with private millers, Rice II, by ensuring lower transportation cost to storing and milling facilities, better grades of paddy, and consequently higher income, may offer the small farmer an alternative which he might not heretofore have had.

But "the future of privately operated rice mills . . . is not collectively threatened by . . . [Rice II]." The Onverwagt rice mill, for example, is not expected to have a negative impact on private millers in the MMA project area. Nonetheless, "the viability of milling as a private enterprise depends on the policy set by the Government of Guyana."¹⁷

Conditionality

"Conditionality" is the situation where a lender imposes ". . . requirements on a borrower beyond mere repayment of a loan . . . [for example] . . . fiscal, monetary, or international commercial policy reform"¹⁸ As was the case with Stage II of Phase I of the MMA project, Guyana would have been able to implement Rice II if it were prepared to follow market oriented economic and financial policies.¹⁹

On August 24, 1983, the Guyana Chronicle reported that the U.S. government had not only vetoed funding for the Stage II of Phase I of

¹⁷Ibid., p. 78.

¹⁸Bruce Herrick and Charles P. Kindleberger, Economic Development 4th ed. (New York: McGraw-Hill Book Co., 1983), p. 509.

¹⁹James B. Burnham, "International Lending in an Uncertain World," Vital Speeches of the Day (February 15, 1983) 49:9:283-286.

the MMA project, but had also cancelled funding for Rice II and for Small Farm Development in the Black Bush Region. In fact, a USAID Representative in Guyana had informed the Guyana government that funds for the projects were cancelled because it had failed to pay the arrears on other USAID loans. Article D, Section 3(a), (b), (d) and (d):(1), Project Loan Standard, Provisions Annex, (Loan Agreement between Guyana and the United States of America for Rice Modernization II), states that if at any time

An Event of Default has occurred; or

An event occurs that A.I.D. determines to be an extraordinary situation that makes it improbable either that the purpose of the Loan will be attained or that the Borrower will be able to perform its obligations under this Agreement; [or]

The Borrower shall have failed to pay when due any interest, installment of principal or other payment required under any other loan, guaranty, or other agreement between the Borrower or any of its agencies and the Government of the United States or any of its agencies;

Then A.I.D. may:

suspend or cancel outstanding commitment documents to the extent they have not been utilized through irrevocable commitments to third parties or²⁰ otherwise, giving prompt notice thereof to the Borrower.

The Government of Guyana argued, however, that the U.S. government's position in cancelling the loans was "specious and

²⁰Loan Agreement between Guyana and the United States of America for Rice Modernization II, Project Loan Standard--Provision Annex, August 31, 1978, p. 8.

unconvincing since USAID and all Guyana's major creditors . . . [had] agreed to await a rescheduling which . . . [was] to take place in the near future."²¹ It further argued that "the U.S. Government would like to see Guyana's rice industry privatised, with the big millers being responsible for milling and marketing locally and overseas to the exclusion of the State . . . [and that] the U.S. administration wants all subsidies to consumers of rice be removed and let the so-called market place dictate prices."²² The Government of Guyana claimed that the U.S. administration was interfering in its internal affairs by subjecting it to economic pressure designed to cause a deviation or abandonment of its socialist path, and to alter substantially the structure of its economy.²³

Discussions with an official at the GRB, and the Agricultural Officer, USAID, Georgetown, supported the contention that the U.S. administration and the I.M.F. pressed the Government of Guyana to undertake "macro-economic policy reforms" in the rice industry, as well as in other sectors of the economy.²⁴ In fact, the phasing out of subsidies to rice producers and consumers (begun in 1980) and higher input prices for fertilizers and insecticides, especially since February 1982, were in part a response to such pressure.

²¹Guyana Chronicle, August 16, 1983, pp. 1, 4.

²²Guyana Chronicle, August 22, 1983, p. 4.

²³Id.

²⁴Interview with an official at the Guyana Rice Board, and with the Agricultural Officer, USAID, Georgetown.

So, the implementation of Rice II is currently stalled. And like the failure to implement the Kabawer Settlement Scheme, the non-implementation of Rice II means that the income and employment objectives of the MMA project are further set back and the expected increased contribution of the rice industry to GDP and to export earnings will be much less. Furthermore, bottlenecks along the farm-to-market chain will continue to plague the industry. In short, Rice II, like the Kabawer Settlement Scheme, is a pleasant but unfulfilled dream.

CHAPTER 8

ADMINISTRATIVE AND INSTITUTIONAL APPARATUS

Principal Institutions and Administrative Agencies

Figure 8-1 depicts the principal institutions and agencies connected with the MMA project, and the areas for which they are responsible.

The original estimate of the MMA project was G\$200mn. Loans of G\$175mn were guaranteed by The Inter-American Development Bank, and G\$25mn were to be raised by the Government of Guyana. However, the ratio of financing individual permanent works within the project differs: the IDB allocated 100 percent funding for the conservancy and the dam but only 80 percent for engineering and construction of other works. Furthermore, IDB funds are disbursed in four categories: (a) machinery and equipment, (b) direct payments to foreign consultants, (c) completed works (certified by consultants), and (d) the purchase of spare parts, etc., from a revolving fund.

The mechanisms which co-ordinate activities connected with the MMA project are the Cabinet Sub-Committee for Economic Affairs and the State Planning Secretariat, "the principal executive and administrative organ" of the State Planning Commission.¹ The institutional objective is to provide a monitoring process that oversees the financial commitments of the MMA project and the

¹The State Planning Commission was established by virtue of the State Planning Commission Act, 1977.

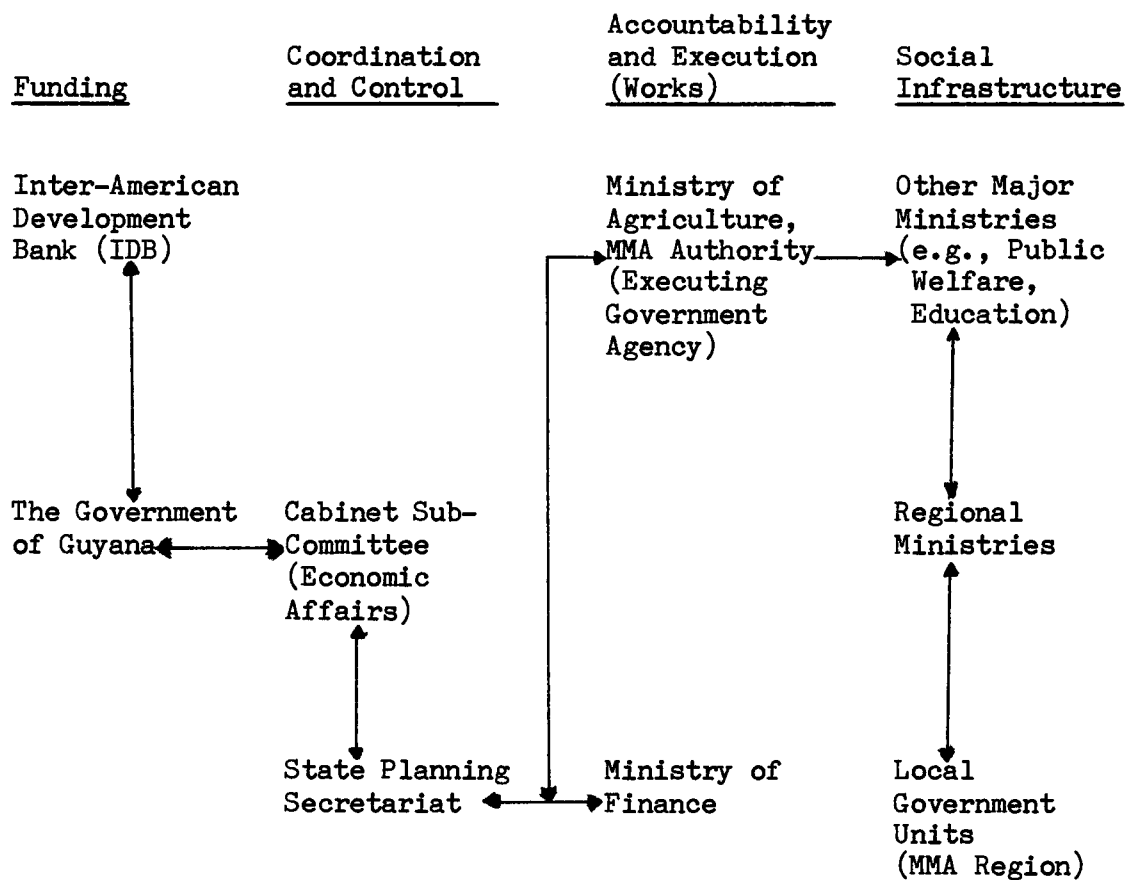


Figure 8-1. The MMA Project: Principal Institutions

disbursement of related funds, reviews the physical progress of the project, and provides a link between the IDB and the MMA-ADA.

The State Planning Secretariat reports to the Cabinet Sub-Committee for Economic Affairs, which is concerned with the progress of the project, but whose members, as politicians, are also concerned with the impact of the project on their supporters. If, for example, the State Planning Secretariat should prepare a report which shows that adverse impacts might be suffered by residents of the MMA region, the Cabinet Sub-Committee may request that the report be rewritten to show a less adverse impact, or may ask that such impacts be mitigated. In this way, the Cabinet Sub-Committee may influence activities connected with the project.

As the overseer of the national plan, the State Planning Secretariat attempts to ensure that the MMA project fulfills national objectives. Specifically, the State Planning Secretariat provides program guidelines for finance and for the current and capital expenditure that should be undertaken in connection with the project. The State Planning Secretariat acts as a final authority in accepting or rejecting a particular approach to an MMA program.

The Minister of Agriculture is responsible for the MMA project, so the MMA-ADA, the executing agency of the MMA project, falls under this Ministry. The Chairman and Deputy Chairman of the MMA-ADA are, respectively, the Minister of Agriculture and the Regional Minister for the region within which the project falls. The Ministry of Agriculture through the MMA Authority is accountable for the capital expenditure associated with the project. The other principal

ministry which is involved in the accountability and execution of works is the Ministry of Finance, which is legally responsible for the MMA's budget.

In addition to the Minister of Agriculture (Chairman) and the Regional Minister (Deputy Chairman), other members of the MMA-ADA are the General Manager (appointed by the Minister of Agriculture), the chief hydraulics officer, the chief agricultural officer, the commissioner of lands, and one representative each designated by the Guyana Rice Board, the Guyana Sugar Corporation Ltd., the Guyana Marketing Corporation, the Livestock Development Company Ltd., the Guyana Agricultural Products Corporation, the Guyana Agricultural Cooperative Bank, and the Central Board of Health. There are also a representative of local government interests and a maximum of five additional persons appointed by the Minister.²

The business of the MMA-ADA is regulated by an Executive Committee whose members are the Chairman (Minister), Deputy Chairman (Regional Minister), General Manager, the chief executive officer responsible for the day to day business of the Authority, and two other members of the Authority, appointed by the Authority. The appointed members of the executive committee serve one year terms but may be re-appointed. Further, the Minister appoints persons to head the following divisions or units within the Authority: engineering services, agricultural development, lands and surveys, finance,

²"Mahaica-Mahaicony-Abary Development Authority Act 1977" (Act No. 27 of 1977), p. 28.

administration, planning and programming, operations evaluation, and internal audit. The General Manager, Principal Officer (Operations Evaluation), and the Internal Auditor report directly to the Authority and the executive committee.

The functions of the MMA-ADA are broad. They include the responsibility to accelerate and promote agricultural development in the area, prepare and approve all related plans for agricultural development and land use, approve cropping patterns, farming practices, new rural community services and relocation, manage, operate and maintain all drainage and irrigation system, all access roads and related facilities within the area constructed for or acquired by the Authority, coordinate and approve such schemes proposed for the area by other public authorities, and promote cooperative development.

Given its functions, the Authority's influence over development in the project area, at least potentially, spreads to and conditions its relationships with other agencies. For examples, no sea defense works could be undertaken within the area by the Sea Defense Board without the Authority's approval; the Guyana Rice Board and the Guyana Agricultural Cooperative Development Bank are expected to consult with the Authority in the process of granting credit or offering loans to farmers (so that farmers may be given the best financial package or assistance); the Guyana Rice Board is also expected to consult with the Authority concerning the Board's plans on development of the rice industry (so that projected development in the area would be taken into account); and the Guyana Sugar Corporation must inform the

Authority of any installations or operations (which may affect water flow) in the area. The Corporation is not permitted to make any alterations or changes in related facilities without the Authority's consent.

The provision of social infrastructure or welfare for the MMA region falls within the separate programs of the major ministries: Ministry of Agriculture, Ministry of Education (primary, secondary and technical), Ministry of Higher Education (responsible also for cooperative and ideological education), Ministry of Public Welfare (health, environment and water supply, and housing), Ministry of Cooperatives, Ministry of Regional Development, Ministry of Works and Transportation, and Ministry of Trade and Consumer Protection, Caricom Affairs and Manufacture. Such services are not a part of the MMA-ADA package. In cultivating local support, however, the MMA-ADA holds discussions with Local Authorities and groups of farmers within the region. The Authority may assist farmers by providing them with earth moving equipment if they cannot fund such efforts. Further, in keeping with the principle of decentralization, farmers are represented on the MMA Board.³ As representatives on the Board, they have direct input into and influence upon the decisions of the MMA-ADA.

Figure 8-2 gives a further view of the relationships between the principal institutions shown in Figure 8-1 by sketching the cycle of the release of funds "from the Ministry of Finance via the State

³See the MMA Act for the composition of the MMA Board.

1. MMA-ADA--Request to State Planning Commission.
2. SPC Action
 - a. Meeting with MMA-ADA, Details Reviewed.
 - b. SPC forwards request for initial or amended amount to SPC Chairman for approval.
 - c. SPC Chairman approves, authorizes Secretary to Treasury to release funds.
3.
 - a. Secretary of Treasury advises "P.A.S. Budget (Finance)" to prepare warrant for signature by Minister of Finance.
 - b.
 - i. Minister of Finance signs warrant, which
 - ii. Authorizes Accountant General to make payment.
 - c. Accountant General informs interested parties of amount of funds released and warrant number.
4.
 - a. Request for Remittance prepared by Ministry of Agriculture (MOA).
 - b. Request for Remittance sent to Accountant General.
5. Accountant General issues check to Permanent Secretary.
6.
 - a. MOA deposits check in its account.
 - b. MOA issues check for approved amount to MMA-ADA.
 - c. MMA-ADA issues receipt and deposits check in its account at Guyana National Co-op Bank.
7. MMA via Ministry of Finance "processes claims to IDB for foreign exchange direct payments or reimbursement."

Figure 8-2. Institutional Relationships: Cycle Release of Funds

Planning Commission."⁴ Undoubtedly accountability and control are preserved throughout the cycle. However, this cycle, repeated every month, has caused delays in phases of the project. The process does not offer much maneuverability given the time constraints built into the cycle. With no delays, an MMA-ADA request would generally be processed through stage 6 in approximately twenty-three days. Stage 7 requires an additional twelve days. Should delays occur within the cycle, then the process may frustrate the MMA-ADA's operations and the MMA-ADA would not be able to carry out its charge effectively. This issue and other related problems are discussed below.

Issues and Problems

Consultancy Services

The IDB loan (processed as Loan No. 536/SF-GY) was secured on February 1, 1978. Amounting to US\$49.5 mn, the loan was to be disbursed over five and one-half years. The principal terms of the loan are an interest rate of 1 percent per annum for a ten year grace period, and an interest rate of 2 percent per annum for the remainder of the repayment period of 40 years.⁵ These terms are generous. However, there is a view that (a) the portion of these funds which are

⁴Information regarding Figure 8-2, was culled from (a) Letter dated July 30, 1980, to Mr. Terrence M. Glavin, IDB representative in Guyana, from Mr. Q. M. d'Abreu, Project Manager (Finance) on behalf of the General Manager, MMA-ADA, Mr. B. W. Carter, and (b) Letter dated August 8, 1980, to Mr. Clarence Ellis, Deputy Governor, Bank of Guyana, and Chairman, State Planning Commission, from Mr. Glavin.

⁵See Report on Development Assistance 1978, Guyana, UNDP, August 1979, p. 43.

earmarked for foreign consultancy fees is too large, (b) the consultants might be primarily involved in the operation "for the money," and (c) that local expertise may be a less costly alternative to foreign counterparts. Are these charges groundless? Are borrowing countries saddled with consultancy of marginal value? Are such services one of the costs of gaining the loan? Is it a concomitant of the politics of funding? On the other hand, do such services reflect a country's need as perceived by the IDB? Are they a means whereby the IDB may review project implementation and progress? Do they improve project management?

Documentary information shows that technical assistance required for the MMA project were included in the feasibility studies, and were to be an aspect of project implementation.⁶ In this connection, the IDB provided the U.S. equivalent of G\$840 thousand in "MMA advisory services for implementation of agricultural development policies."⁷ This service, one may suspect, is not a matter of concern since the funds are, in effect, a grant.

In a general sense, consultancy services are a transfer of resources from a donor country or international agency to a recipient country. As a resource or a transfer of technology, consultancy services may be examined against "gap analysis"--a structural analysis that focuses on the composition of an economy and its states of

⁶Guyana: List of Projects for External Financing, 1978-1980. Report No. 2063-GUA, Latin America and the Caribbean Regional Office (Document of the World Bank), May 9, 1978, p. 5.

⁷Report on Development Assistance 1978, p. 6.

disequilibrium. In particular, gap analysis explores the causes and nature of gaps in skills, capital, or foreign exchange. Of note is the fact that these gaps are not readily filled by the "movement of prices and responsive reallocation of resources."⁸ In the short run, however, they may be reduced by foreign aid.

Here we examine the gap in skills or, more precisely, in professional expertise and in administrative and managerial capability. For some observers shortages in these areas are the most serious constraint on project implementation.⁹ Similarly, such shortages suppress the absorptive capacity of an economy and constrain its growth and development.¹⁰

The MMA-ADA sought consultancy services for three areas:¹¹

1. Engineering and supervision of project implementation. Apart from monitoring the construction of the main physical works, the consultant was required to study and revise final designs of works prepared by the Ministry of Agriculture, undertake further site surveys and investigations, prepare tender documents, supervise and

⁸Charles P. Kindleberger and Bruce Herrick, Economic Development, 3rd ed. (New York: McGraw-Hill Book Co., 1977), p. 186.

⁹See Auturo Israel, "Management and Institutional Development," Finance and Development (September 1983) 20:3:15-18.

¹⁰Clarence Zuvekas, Jr., Economic Development: An Introduction (New York: St. Martin's Press, 1979), p. 352.

¹¹See Consultancy Services--Statement of Work (Cooperative Republic of Guyana Agreement between Mahaica-Mahaicony-Abary Agricultural Development Authority and Sir William Halcrow and Partners for Consultancy Services to assist in implementing the Abary River Water Control Project), Appendix G, pp. ii-vi.

oversee contract administration of works including farm development, and other related tasks.

2. Agricultural development. The consultant was required to supplement "existing efforts and expertise in applied agricultural research, seed production, . . . farming patterns, land development, land and water management especially for non-traditional crops," and to organize and train extension personnel.

3. Institutional strengthening. Consultancy services covering technical, financial and administrative management were expected to bring about improved coordination of the MMA project. As a result, the MMA-ADA hoped to become more efficient in accelerating agricultural development and in operating and maintaining the drainage and irrigation works in the project area.

Engineering and supervisory services were required for five years, from 1978 to 1983--the period scheduled for implementing Phase 1 of the project. Services geared to agricultural development were to be employed over the same period but primarily from 1978 to 1980, as were those for institutional strengthening.

Consultancy services for the MMA project were estimated in 1978 at US\$6.06mn. Engineering, agricultural development, and institutional strengthening amounted to US\$5.31mn (88 percent).¹² Other related expenses--such as international travel and transportation, hotel and domestic accommodation (apart from that provided by the MMA-ADA), car and milage allowance, London home office and

¹²Ibid., Appendix D.

Guyana office cost, and training in the United Kingdom--amounted to US\$.75mn (12 percent).

Consultancy costs were allocated on a functional basis. Engineering consultancy, for example, was charged to permanent works; agricultural consultancy and institutional strengthening were charged to "Authority Operating" expenses. Table 8-1 shows that consultancy expenditure for the period under review--G\$12.80mn (US\$5.02mn), or 83 percent of the 1978 estimate of US\$6.06mn--was approximately 18 percent of functional expenditure. However, consultancy costs estimated in 1978 are only 8 percent of the original estimated cost (US\$78.40mn) of the MMA project. The yearly percentages are much higher although they fell significantly in 1980. These, nonetheless, may be attributed to the type of services required for the early phases of the works, and undoubtedly reflect high mobilization and start-up expenditure. Lower consultancy cost in 1980 suggests that there was less need for advisory and related services as the works progressed.

Two points are apparent here. First, monthly or yearly consultancy expenditure relative to functional expenditure--the narrower view--conveys the impression that consultancy costs are a heavy burden on the MMA-ADA. Second, consultancy costs vis-a-vis total project cost--the broader view--suggests that such costs are not as burdensome as implied in the first comparison.

The question whether consultancy costs, assuming that they are a condition for the loan, are too high may also be viewed against the

Table 8-1

Consultancy Services: 1978-80
(G\$mn)

Functional Expenditure		Consultancy Expenditure		Consultancy as Percent of Functional Expenditure
<u>1978</u>				
Permanent Works	7.25	Engineering	1.47	21
Authority Operating		Agricultural		
Expenditure	1.20	Development and		
		Institutional		
		Strengthening	.71	59
Total	8.45	Total	2.18	26
<u>1979</u>				
Permanent Works	14.03	Engineering	3.86	28
Authority Operating		Agricultural		
Expenditure	4.30	Development and		
		Institutional		
		Strengthening	2.02	47
Total	18.33	Total	5.88	32
<u>1980</u>				
Permanent Works	35.50	Engineering	3.64	11
Authority Operating		Agricultural		
Expenditure	8.70	Development and		
		Institutional		
		Strengthening	1.09	13
Total	44.20	Total	4.73	11

Source: Memorandum, dated December 6, 1979, to Chairman, MMA-ADA from the General Manager, MMA-ADA, and MMA-ADA Financial Reports and Accounts, March 1980, pp. 5, 15.

"concessional element" in international loan arrangements. In other words, we may review consultancy costs against the situation where the "repayment terms involve concession from market terms,"¹³ as they did in this case. Recall that the MMA loan is to be repaid at an interest rate of 1 percent for the first ten years, and 2 percent for the next forty years. If, on the other hand, the loan had been secured from the international capital market, the rate of interest could have been in the range of, say, 15 percent to 20 percent. Since "the concessional element of a foreign-aid loan is the difference between the amount of the loan and the present discounted value of the stream of repayment,"¹⁴ the difference between the interest rates is itself a large concession. Then, the longer the period of repayment, the longer does the recipient country have the use of the resources acquired as a result of the loan, and thus the larger does the concession become. So, with interest rates of 1 percent for ten years and 2 percent for the next forty years, the MMA-ADA has undoubtedly received a very large concession from the Inter-American Development Bank. The concessional element of the MMA loan must outweigh any questionable portion of the cost of consultancy services.

The above notwithstanding, one legitimate question is whether all the personnel which appear in the consultant's staff chart (Appendix C, pp. 260-261) were necessary. Indeed development planners must be on guard against "bootless" policies that, among other things, may

¹³Herrick and Kindleberger, pp. 445-446.

¹⁴Ibid.

include an oversupply of international technicians and technical experts and their related perquisites.

From Appendix C one can derive the figures for engineering consultants shown in Figure 8-3. The question has been raised, "Were the consultancy services for the Site Engineers as a group, and the Resident Engineers as another group, so different that there was a need for that many experts?" Unless one knows what is actually being done, one cannot say how many experts are needed. Even so, was it not possible that some of this expertise could have been provided by local engineers? On the other hand, such foreign personnel might have been necessary in order to provide required services within the allotted time.

Here, we turn to the agricultural development program for a case in point. There was, it seemed, a need for an ecological study in relation to the agricultural program. The reconnaissance mission for this study had the following terms of reference:

1. to determine what environmental studies would be useful and achievable, given budgetary and time constraints;
2. to determine what information, expertise and equipment would be available locally for use in these studies; and
3. to consider what future studies could be recommended to Guyanese authorities to implement, using local resources."¹⁵

Could not this study have been carried out by local personnel? This question was addressed by the Halcrow Partnership:

¹⁵ MMA-ADA Engineering Programme Progress Report for May 1980 (Sir William Halcrow and Partners and Associates), June 13, 1980, pp. 7-8.

Site Engineer (Investigations)
Site Engineer (HQ construction)
Chief Resident Engineer
Deputy Chief Resident Engineer
Resident Engineer (Contract 1)*
Resident Engineer (Contract 2)
Deputy Resident Engineer 1
Deputy Resident Engineer 2
Section Engineers

Figure 8-3. Engineering Consultants: A Partial List

*Under contracts 1 and 2, the engineers were required to undertake field inspections, review design and documents, prepare tender documents and engineers' estimate; prepare schedule of existing structures; prepare working drawings; examine prequalification and invitation to bid; print documents; make site visits with tenderers; assess tenders; review construction program; approve bonds, surities and insurance; mobilize contractors; supervise construction of contract works; and make minor improvements or modifications to the works.

Source: Abstracted from MMA-ADA: Engineering Programme Progress Report for 1980 (Sir William Halcrow and Partners, May, 1980), Figures 5 and 6, pp. 14-15.

Within the consultants, responsibility for coordinating efforts at the Authority to mount an environmental study was transferred to the Agricultural Team Leader. A proposal for the study was received from a group from the University of Guyana led by Professor Niles. The proposal, however, was for a long term study, and was not acceptable because of cost and because the Authority required a short concentrated study to identify areas for more detailed attention [Thus] agreement was reached with the General Manager of the Authority that responsibility for the ecology study would be given to an expatriate consultant group (Aquatic Biological Consultancy Services Limited), but that they would be required to make maximum use of local expertise.¹⁶

In Guyana some consultants provided full time while others provided intermittent service. Similarly, some provided full time and others intermittent service in the United Kingdom. The point here is that the consultants were not engaged for the same time period nor were they all required to come to Guyana. This arrangement may have reduced consultancy costs.

To sum up, it is evident that consultancy services played, and continue to play, an important role in the development and implementation of the MMA project. Consultancy services or technical assistance is, in part, a function of the amount and kind of capital formation geared to a project.¹⁷ As in the case of the MMA project, it becomes a necessary factor in the process of structural change. The use of local expertise can reduce consultancy costs and should be encouraged. The Halcrow Partnership recognized and supported this

¹⁶ MMA-ADA Agricultural Programme Quarterly Progress Report for Period Ending March 31, 1980 (Sir William Halcrow and Partners and Associates), May 12, 1980, pp. 3, 1.

¹⁷ Benjamin Higgins, Economic Development: Problems, Principles, and Policies (New York: W. W. Norton and Co., Inc., 1968), p. 587.

point. Finally, if one considers consultancy costs in the broader sense--that is, as a ratio of total project cost--then it does not appear that consultancy costs for the MMA project are prohibitive.

Release of Funds Procedure

The critical nature of the release of funds cycle is captured in excerpts from a communication from the MMA-ADA to the Chairman, State Planning Commission:

The Auditor General in his report on the Authority's Accounts for 1979 stated under the heading "Source and Application of Funds" quote, "The amount would have been considerably more had release been obtained by the Authority promptly from the Central Government."

You were requested to give an assurance that the situation at 31st December 1979 would be corrected in 1980, to date a reply has not been received.

I enclose a copy of our Half Yearly Accounts to 30th June 1980, and . . . it has highlighted the fact that our Bank Balance at 30th June was in the 'red.'

A Source and Application of Funds Statement at 30th June 1980 . . . highlights the fact that the position for the first half of 1980 is worse than in 1979 with regard to releases.¹⁸

Although accountability and control are preserved throughout the release of funds cycle, the monthly repetition of the cycle contributed to delays in processing MMA-ADA's request for funds. With insufficient funds, the Authority could not carry out its charge effectively. The quotation points up bottlenecks in the office of the Chairman, State Planning Commission, who is responsible for reviewing,

¹⁸Letter dated August 13, 1980, from Mr. Q. M. d'Abreu, for the General Manager, MMA-ADA, to Mr. Clarence Ellis, Deputy Governor, Bank of Guyana, and Chairman, State Planning Commission.

approving, and authorizing MMA-ADA's request. According to this communication the Chairman of the State Planning Commission was requested to resolve problems or eliminate bottlenecks in those areas of the release of funds cycle that are his responsibility. He had not done so eight months after the initial request. One explanation for such inaction was put by a member of the State Planning Secretariat thus: "there are a few people (officers) wearing two hats, that is, attempting to do two or three full-time jobs."¹⁹ Note that the chairman, State Planning Commission, was also Deputy Governor, Bank of Guyana. This situation has been frustrating to officials of the MMA-ADA. One view is that it has "hamstrung" the Authority. In view of this state of affairs, suggestions were made to reform the release procedure. Specifically, the principal recommendations were to institute:

1. Sub-Treasuries in large project-management offices, separate divisions for these projects in the Capital Budget, and separate accounting officers;

2. a separate expeditious treatment, in the interim, of releases for projects which (a) have national priorities, (b) have timeclocks running on local and international contracts wherein the government runs risks of high opportunity cost, or interest payments, due to slow processing, and (c) produce systematic reporting; and

3. a quarterly rather than monthly project review and accompanying advance preparation of 3-monthly releases. This review

¹⁹ Interview with an official of the State Planning Secretariat.

would allow more time for conjoint problem solving and the standard issuance of a memo on actions to be taken, responsibility, and deadlines, upon which follow-ups could be reported.

These recommendations would undoubtedly increase MMA-ADA's efficiency. They would eliminate, for example, cases such as those where orders for material required for certain works took ten months to be processed.²⁰ Two related concerns are posed here: (a) the inefficient use of resources, and (b) cost over-runs that ensue from administrative bottlenecks. One example will suffice to underscore these points. As earlier stated, the original estimate for the MMA project increased from G\$200mn to G\$317mn in 1980. Much of this increase may be attributed to increasing resource cost due to inflation, but some stems from faulty administrative procedures which delayed the procurement of material purchased subsequently at higher costs. Again, according to a commentator, "the bureaucratic authorization process" bottled up an order for the procurement of concrete for one of the works. This in turn idled fifty men and contributed to increasing unit costs of this operation.²¹ Reform of the release procedure should engender greater administrative as well as productive efficiency within the MMA project.

²⁰MMA-ADA Financial Review for Period Ending March 1980 (Sir William Halcrow and Partners and Associates), p. 4.

²¹Interview with an official of the State Planning Secretariat.

The State Planning Secretariat

Given (a) that the government is committed to national planning, (b) that the State Planning Secretariat reports to the cabinet, and (c) that the Secretariat exercises much influence over the Authority's programs, it would appear that the Secretariat is well positioned to effect meaningful changes in the economy. However, there are factors which undermine the Secretariat's effectiveness and may directly or indirectly adversely affect the MMA-ADA and its programs.

Critics claim that the State Planning Secretariat enjoys limited success because of problems of "attitudes and status." First, these critics contend that a majority of the staff, "recent university graduates who are feeling their way," do not fully comprehend Guyana's development strategy; neither are they "in-tune" with integrated development.²² Second, some of the staff disapprove the practice that allows "a few people within the planning mechanism to wear two hats, that is, to pursue two or three full-time jobs." These situations are regarded as recipes for failure and members of the staff, seemingly powerless to change them, become cynical and suffer from low morale.

Another contention is that the Secretariat's role is broad and sweeping, so that it has a problem of role definition. Critics argue that the Secretariat's roles in planning, plan execution, and monitoring, and its powers, authority, and responsibilities should be

²²Interviews with officials of the State Planning Secretariat.

clear-cut.²³ This is critical, they say, since the Secretariat appears to have absorbed the power of the budget executive.

The Secretariat's ability to focus on centrally planned development is also questioned. Given an inadequate data base, and the limits imposed by a shortage of trained personnel, the Secretariat is constrained in its attempts to acquire information and feedback on developmental targets. Efforts at coordination and implementation are frustrated. The lack of adequate information may indicate that the development of regional linkages, for example, would be a difficult task.²⁴ This raises the question whether regional programs, even the MMA project itself, have been properly dovetailed with the national development plan. In addressing this point, one official said, "[T]here is no regional planning but regional administration. There seems to be some planning sectorally but here too there is no interface with regional plans."

The MMA-ADA and Social Infrastructure

The MMA-ADA, in promoting development in the area, must necessarily seek the cooperation and often close working relationships with the major sectoral ministries and other agencies that provide social facilities and services in the area because many of these services fall outside the ambit of the MMA-ADA.

More specifically, the MMA-ADA needs to work closely with the Central Housing and Planning Authority on density of population and

²³Id.

²⁴Id.

land-use, with the Central Board of Health on public health, waste disposal, and sanitation, with the Guyana Water Authority on providing residential water needs in the area, with the Guyana Electricity Corporation and the Guyana Rice Board on the supply of electricity for residential and productive activities, and with the Guyana Electricity Corporation and the Guyana Telecommunications Corporation on telecommunication services. However, such joint working cannot be taken for granted. First, in providing services for the area, the major ministries may have a different order of priorities than MMA-ADA and they may seek to implement these at the expense of those of MMA-ADA. Such conflicts are mediated and/or resolved by the State Planning Secretariat, which is responsible for ensuring that sectoral plans as well as the MMA-ADA's program seek to fulfill national objectives.

Second, the potential power which the Authority possesses in its relationship with other agencies that provide services in the area could create jealousy and antagonism among administrative and other personnel of these agencies. They may resent the idea of having to consult, and, what's more, to seek the permission of the Authority before they provide additional services in the area. Thus cooperation between the MMA-ADA and these agencies may be much less than is desired. Here the Authority will have to exercise prudence in its relationships with such agencies. To this end, the General Manager, apart from the day to day administration of the Authority, must cultivate related agencies by being sensitive to their concerns.

Again, development at the project level involves the MMA-ADA, sector ministries, the regional ministry, the regional system, the area's local government authorities, cooperatives, and other related agencies such as the Sea Defense Board and the Guyana Rice Board. While this multiple involvement is in keeping with the spirit of decentralization and participatory democracy, there is the possibility that the operations of the project will become overly complex because they cut across so many agencies or institutions. The result is likely to be greater difficulty in coordinating the project.

Administrative Overlap and Constraints

Another situation that may adversely affect the MMA-ADA is the likelihood of intrusion from the PNC organization or the area's Regional Ministry in the MMA's affairs. One of the motions discussed at the Third Biennial Congress of The People's National Congress, 1979, read:

Whereas the functions of the Ministry of National Development and Ministry of Regional Development sometimes overlap;

And whereas the efficiency of both Ministries to implement their common programme needs to be improved;

Be It Resolved that the Third Biennial Congress recommends ²⁵that there be a merger between these two Ministries.

Speaking in support of the motion, one of the delegates argued that

²⁵Third Biennial Congress, Vol. 2, p. 190.

To have greater production and productivity, you should not have two Ministries fighting one against the other. What we need is the increasing involvement of the working class in state affairs, working side by side with the Government personnel in one Ministry.²⁶

During the discussion, the leader of the PNC, L.F.S. Burnham, explained that the Minister of National Development was also the General Secretary of the PNC (see Chapter 3, "Ideas of Animation and the Vanguard Party," pp. 47-51) and that it was important to leave National Development with the General Secretary of the Party, who can call upon "the energies of those who are employed by the government as well as that of party workers." As an example, he said that self-help schemes that fall under the Ministry responsible for Regional Development and also Community Development should be organized and mobilized by party groups or activists who represent the cutting edge of grass-roots operations. He also pointed out that the Minister responsible for Regional Development was the Minister of Economic Development and also the Minister of Amerindian Affairs. In charge of Economic Development, the Minister is responsible for the day-to-day functioning of the State Planning Commission, Local Government, and Community Development.²⁷ In the area of Regional Development, six regional chairmen of the PNC report to him. Further, the Minister was responsible for Cooperatives. This was the argument that National Development could not feasibly be transferred to Regional Development. But, says the leader of the PNC,

²⁶Id.

²⁷Ibid., pp. 190-191.

I want to emphasise something which perhaps has not been working. . . the Regional Minister in any region is supposed to coordinate the activities of every Ministry in that region; so that . . . there should be no overlapping. The Regional Minister and his staff should be able to coordinate Regional Development and National Development wherever the occasion arises, in such a way²⁸ that there should be no overlapping or conflict. . . .

Who, then, is responsible for organizing and mobilizing resources at the grass-roots in the area: party groups or activists or the MMA-ADA? If the Regional Minister "is supposed to coordinate the activities of every Ministry" in the area, then does he coordinate those of the Ministry of Agriculture, which is responsible for the project? And does this mean that the MMA-ADA, the executing agency of the MMA project, which falls under the Ministry of Agriculture, should have areas of its responsibility coordinated by the Regional Minister? The functions of the MMA-ADA, expressed in the MMA Act, are quite clear. Yet party groups and activists, and the Regional Minister, may interpret their role in a way which may limit that of the Authority.

This point, in fact, is made by an official of the Authority who held that the Chairman of the Regional Democratic Council (a PNC member) sees himself as the boss of the region and accordingly issues directives to the MMA-ADA. Further, this official claimed that members of the MMA-ADA fear the political clout of the Regional Chairman, that they become frustrated because the Authority does not operate according to the MMA Act, and that the regular turn-over of personnel at the MMA-ADA attests to this situation.²⁹

²⁸Ibid., pp. 191-192.

²⁹Interview with an official of the MMA-ADA.

In supporting this position, a disgruntled PNC district representative had this to say: "they gave us a dictator for a chairman--a man who is intolerant to other views."³⁰ This and similar problems were serious enough to cause one of the Commissions on national reconstruction at the Fifth Biennial Congress of the PNC to call for greater accountability of the Regional Democratic Council to the people of the regions.³¹

³⁰Interview with a PNC activist in the MMA area.

³¹Guyana Chronicle, August 22, 1983, p. 4.

CHAPTER 9

RICE REGIME AND RICE ECONOMICS

Agricultural Price Policy: An Overview

Agricultural price policy may be supported because of (a) unstable farm prices in a free market setting, (b) the need to increase agricultural output and productivity, and (c) the desire to enhance or maintain consumer welfare.

There are then three central objectives of agricultural price policy: the income objective, to raise farm income through higher farm prices; fiscal incentives, such as credits for agricultural machinery; and income distribution measures, such as subsidies for inputs. The production objectives are to encourage greater intensity of resource use in the agricultural sector and to increase the agricultural surplus, which, in turn, increases capital formation in the economy through savings and which helps to alleviate balance-of-payment problems. The welfare objective is to insulate consumers, particularly the poor, from high food prices so that they do not experience a lower standard of living.

Agricultural price policy must seek to accomplish the desired results, but at the same time must anticipate unexpected side effects. For example, agricultural price policy may be regressive irrespective of efforts at income redistribution. It will depend on who benefits

from the policy: small farmers, consumers who earn low incomes, large farmers, laborers, or land owners?¹

Consider further the policy's impact on technology. Given the high rate of unemployment and underemployment in developing economies, is it not possible that fiscal incentives which subsidize the cost of agricultural machinery might encourage capital rather than labor intensive processes, and thus militate against the employment objective? Furthermore, increases in agricultural prices may trigger price increases in other products. If this happens effective demand may be curtailed. The point here is that agricultural price policy has impacts on other sectors of the economy as well.

Further, given price changes, effective agricultural price policy should evoke positive response in the aggregate as well as for individual products, and thus increase the marketable surplus. The issue is elasticity of supply from the standpoint of the individual farmer. If agricultural transformation along progressive and market-oriented lines is primarily a techno-organizational process, as it probably is, then positive response behavior would also depend on the administrative, organizational, and distributional apparatus in the agricultural sector.

The need to stimulate positive responses in agricultural production is underscored by the contention that the concern with low incomes is much more a problem of raising agricultural production and

¹George S. Tolley, Vinod Thomas, and Chung Ming Wong, Agricultural Price Policies and the Developing Countries (Baltimore: The Johns Hopkins University Press, 1982), pp. 1, 5.

productivity than of transferring income from other sectors of the economy. The rationale here is that, especially in the developing countries, income in the non-agricultural sectors is also low, so that income transfers from these sectors is likely to be small.

Agricultural price policy "is neither an adequate nor a feasible instrument for directly raising agricultural incomes."² A preferable policy, some argue, would focus on direct investments in irrigation and water control and on extension and other technical services. Proponents point out that such a policy would engender long-run benefits in increased production and productivity that, in turn, would raise agricultural incomes.

In effect, then, a successful agricultural price policy should accomplish the following: (a) raise agricultural output and productivity by providing incentives that increase investment in input augmenting schemes, (b) create conditions for sustained and significant expansion of the agricultural sector by mitigating those physical and institutional problems which beset farmers, and (c) ensure that the benefits from the agricultural surplus are enjoyed by the appropriate target groups.

The Guyana Rice Board, Price Adjustments, and Production

The Guyana Rice Marketing Board (GRMB) and the Guyana Rice Corporation (GRC) merged in December, 1973, to form the Guyana Rice Board (GRB). The merger, an effort to reorganize the rice industry

²Ibid., p. 9.

and to ensure coordination of government operations from assisting production to final marketing, was in fact a condition for USAID's loan of G\$25.8mn in November, 1968, to fund Rice I.

Initially the GRB administered or was responsible for the operation of " . . . tractors, combines, seed farm operations [for example, at the Mahaicony-Abary Rice Development Scheme (MARDS)], silos, mills, blending and packaging facilities; [provided] research and extension services and inputs, [and also performed] industry management functions. [The GRB had been] the statutory link between producers, domestic consumers, and the export markets."³

In response to conditions attached to external funding for modernizing the rice industry, the role of the GRB has been modified since 1980. Currently GRB's role reflects the view that there should be less government involvement in rice cultivation and that farmers or the private sector should assume the roles and/or provide those services relinquished by the GRB. GRB's operations, such as new rice development, rice production, storage, and shipment, are reviewed by the Ministry of Agriculture. Its annual budget and all appointments to senior and middle level positions are approved by the Guyana State Corporation (GUYSTAC), the institution charged with administrative control of all public corporations. The Ministry of Finance acts as guarantor for GRB's external borrowings and, as a collector of debts, the GRB is linked to the Guyana Agricultural Cooperative Development Bank.

³Rice II, Chapter 1, p. 5.

The GRB comprises eleven persons, four of whom are rice farmers. Day-to-day operations are conducted by the Executive Chairman. Functionally, the Board has eight operating divisions, the principal of which are Production, Marketing, Engineering and Research, and Extension. Operationally, the coastal rice growing area is divided into four regions: Essequibo Coast/Pomeroon River Region, West Demerara/Essequibo Islands Region, East Demerara/West Berbice Region (where the MMA project is located), and the East Berbice Region. Each is administered by a regional manager who operates in a heavily centralized organizational structure because the Board prefers "a centralized system of decision-making (on administrative, financial and technical matters),"⁴ and also because there is a paucity of managerial skills at the local and regional levels.

Local input is provided by Rice Action Committees (RACs); these are composed of rice farmers, rice millers, community development officers, drainage and irrigation officers, and representatives of the Rice Producers Association (RPA).

Actually, some of the GRB's operations have been decentralized despite its preference for a centralized system. Left to the Board's judgment, decentralization would have been more gradual. GRB acquiesced grudgingly, no doubt, to these changes since, as one commentator put it, decentralization was influenced--or, more realistically, stipulated--by the International Monetary Fund as a

⁴Ibid., p. 29.

condition for granting financial assistance to the Guyana government. In consequence, the Board was given deadlines for devolution.

The Board originally subsidized inputs such as fertilizers and pesticides to the MMA area, from Burma (the community where MARDS is located) and Onvawagt (where the MMA's headquarters are now located). These services, to a lesser extent, are now provided by the area's Regional Development Council. As GRB phased out its subsidies, input prices increased. By February 1982, for example, the price of fertilizer increased from G\$34.55 per bag to G\$51.84 per bag, of phosphate from G\$34.42 per bag to G\$53.57 per bag, of monocrotophos (15 fluid oz. of insecticide) from G\$8.99 to G\$11.76, urea (fertilizer) from G\$4.62 to G\$6.87 per lb., 2-4D and propanil (herbicides) from G\$3.01 to G\$4.14 per pint and from G\$3.54 to G\$4.87 per pint.⁵

GRB still sells seed paddy to farmers. But while the average price for seed paddy in 1972 was approximately G\$11.00 per 140 lb. bag, and in 1979 G\$24.00 per bag, it is now approximately \$38.00 per bag. Seed paddy prices have increased by approximately 58 percent since subsidies were withdrawn. It has been estimated that the increase in cost of production per acre is approximately 18 to 20 percent.⁶

Because of variability in production processes in land preparation (plowing, harrowing, and dragging), seeding preparation--

⁵Information gathered from interview with a GRB official.

⁶Id.

broadcasting, fertilization, applying insecticides and weedicides--harvesting and transportation, management and so forth, the average cost of production per acre would differ from one farm to the next. The average cost of production would also differ with respect to farm size, factors such as production within or outside land development schemes, and the variety of paddy cultivated.

The average variable cost per acre for the 1982 autumn paddy crop for farms in the project area was G\$230. In comparison, the average operating costs in 1976 for rice cultivation as a whole were G\$140 and G\$165 for traditional and improved varieties, respectively.⁷ Here then one gets a sense of the extent to which costs have increased over the past eight years. Nonetheless, increases in costs of production may be offset by higher paddy prices and/or by greater efficiency in rice cultivation.

Despite increasing costs, farmers in the MMA area who owned and operated their tractors and practiced good farm management realized net margins of G\$4,900 on a 20 acre farm and G\$6,000 on a 30 acre farm from a single crop in 1981. If a second crop were cultivated, not always possible due to poor drainage and irrigation or other physical problems, the net margin would have increased substantially.⁸

In Autumn 1982 a study of rice farms of five to ninety acres in seven villages in the MMA area found that the maximum gross margin

⁷MMA-ADA: Gross Margins for Selected Paddy Farmers in West Coast Berbice--1982 Autumn Crop, Onvawagt, West Coast Berbice, (n.d.), p. 8.

⁸MMA-ADA: Annual Operating Expenses for Paddy Cultivation, Onvawagt, West Coast Berbice, (n.d.), p. 4.

realized was approximately G\$334 per acre by a 20 acre farm. The farmer who realized the maximum gross margin obtained water for the whole crop by gravity flow and incurred no expense for irrigation. In addition, he owned and operated his machinery and thus was not subject to custom hire charges, practiced good farm management, and cultivated an improved variety. The average gross margin for all farms was G\$100.⁹

Price management in the rice industry falls under the authority of GUYSTAC, which reviews and gives final approval to prices proposed by GRB. Under this system a change in paddy prices triggers a change in the price of rice. Paddy prices have been increasing. While the price per 140 lb. bag of paddy for the highest grade of approved varieties remained constant at G\$20.00 from 1974 to 1977, by June 1981 the price had been adjusted to G\$28.00 per bag. Similarly, the price for the best quality of rice had increased from about G\$48.00 in 1980 to G\$67.00 per bag in 1981. By June 1983 paddy price was adjusted once more, to \$34.00 per bag. The lowest price for approved varieties is now \$26.00 per bag.¹⁰ From this it appears that increases in paddy prices have kept pace with increases in the cost of production.

Following the trend in paddy prices, one study recommends that, as an inducement for greater output and productivity, paddy prices for approved varieties should be increased as follows: Grade Extra "A" to

⁹MMA-ADA: Gross Margins, pp. 4-8.

¹⁰Guyana Chronicle, June 10, 1981, p. 10, and interview with GRB official.

G\$40.00 per bag; "A" to G\$38.00 per bag; and "B" to G\$35.00 per bag. The study further projects that a farmer who operates a 30 acre farm with 180 percent cropping intensity and realizes a yield of 15 bags per acre of grade "B" paddy should earn net income of G\$8,078 per annum.¹¹

Since farmers now receive G\$34.00 per bag for the highest grade of approved varieties, a further paddy price adjustment could raise farmers' income to the G\$9,000 per annum target that the Kabawer Settlement had hoped to achieve by 1989.

Increased efficiency in the rice industry will be realized with cultivation of improved varieties yielding between 25 and 30 bags per acre. Actual yield in the MMA area, however, is approximately 50 percent or less than that of the improved varieties. In fact, the average yield in the area for the autumn, 1982, paddy crop was approximately thirteen 140 lb. bags per acre. The yield ranged between 4.5 bags per acre and 20 bags per acre, and one farmer realized a yield of 23 bags per acre. In any case, the average yield in the MMA area is much lower than the national average of 20.5 bags per acre for the first crop of 1982.¹²

Proper farm management, prudent use of fertilizer, easy access to machinery for efficient harvesting, and adequate facilities for drying and storage are vital if the potential yield from improved varieties is to be realized. So too are the truncated secondary and tertiary

¹¹MMA-ADA: Annual Operating Expenses, pp. 9-10.

¹²MMA-ADA: Gross Margins, p. 11, and interview with farmers.

works which one optimistic observer believed would be in operation in 1985. This observer, however, assumed that the MMA-ADA would get the IDB loan to implement Stage II, Phase 1, of the project (see Chapter 6). But the MMA-ADA subsequently withdrew its proposal because of the United States government's opposition and its authority to block the loan. In short, implementation of the secondary and tertiary works seems unlikely by 1985, and as a result some of the conditions making for a yield of 25 to 30 bags per acre will be missing (see, however, Chapter 10).

Paddy production is also affected by inadequate secondary and tertiary facilities in the MMA area. For example, 35,000 acres are now available for rice cultivation. Yet only 5,500 acres (16 percent) were targeted for cultivation for the first crop in 1982. Of the targeted acreage, 2,839 acres (52 percent) were sown and 2,684 harvested. For the second crop, 12,000 acres were targeted (34 percent), 10,495 (87 percent) sown, and 9,891 harvested. Given this situation, one farmer argued that without the secondary works, the main works are useless. His point is somewhat exaggerated, but it does underscore the critical nature of the secondary and tertiary works.

Poor drainage and irrigation, in addition to historically low net income from rice cultivation, have been responsible in some cases for resources being shifted from rice cultivation to other and more profitable cash crops such as black-eye peas, eschallot, onions and ground provisions (tuberous roots), and to the cattle industry.

Six years ago a farmer who planted 300 acres shifted resources from rice cultivation to cattle. But in 1982 he planted 150 acres with the expectation that overflow from the Abary River would provide adequate amounts of water for his crops. When the expected overflow failed to materialize, he attempted to pump water to his crop. Unfortunately, the pump which was in operation was small and did not provide sufficient water for his crop. He could not obtain parts for his bigger pump because acquisition of spare parts for all kinds of machinery is an extremely critical problem in Guyana. As a result, his entire crop was lost. Even so, he expressed the desire to return to rice cultivation should the infrastructure be in place. His experience, he claimed, would have been devastating to small farmers who, for fear of loss, had not brought some of their land into cultivation in 1982, and who are unable financially to offset the vagaries of rice cultivation in the MMA area, particularly in the absence of the secondary and tertiary works.

Against this backdrop he posed the following question: "Why should we persist in rice cultivation when the government benefits financially from it (a reference to export earnings) and we do not?" Furthermore, he asserts that rice cultivation requires much determination. A little negligence in field work and management for example, may lead to large losses, and much effort may bring low returns. Thus, in response to the question whether investment in rice cultivation is prudent, he argued that achieving the project's employment objective, like its income enhancement objective, is questionable. Alternatively, he argues that if one were to invest

G\$50,000 in animal husbandry--cows, sheep, and goats--one's income in a year will never be matched by that from an equal investment in rice. His argument, however, raises a puzzling question: why then was he willing to cultivate rice even if the secondary and tertiary works were not provided?

Rice Production Technology

The policy maker as well as the farmer should attempt to understand the "interaction between mechanization and labor bottlenecks on the one hand and between mechanization and complementary innovations on the other."¹³ In Guyana, and particularly in the rice industry, these interactions may not have been properly examined. According to an official of the Guyana Rice Board, "appropriate technology" was never a serious alternative in Guyana's rice culture because the rice industry moved rapidly to a capital intensive technology.

This point is underscored by the fact that the tractor has all but replaced the traditional oxen for plowing and land preparation while harvesting by hand with a "grass-knife" has given way to the combine harvester. Table 9-1 contrasts past and present technology.

In 1976 a study found that 13 percent of the rice farmers rented tractors from the GRB at subsidized rates, about 28 percent owned their tractors, and approximately 50 percent used a privately hired tractor. Small farmers operating 10 acres or less rent rather than

¹³Lele, The Design of Rural Development, p. 33.

Table 9-1

Rice Production Technology

Operation	Technology	
	Past	Present
Plowing and field preparation	Oxen	Tractor
Seeding	Transplanting, often by women	Hand sowing (broadcasting); airplanes for large farms
Weeding	Hand, with cutlass, hoe, etc.	Herbicides
Harvesting	Hand, with grass-knife	Combine
Transport of paddy	Head loaded from fields to boats. Donkeycarts on public roads to mills	Portering*. Tractor or trailer on the dams and public roads, or directly by truck to mill or silo if conditions of embankment permit.

*Head loading from field to embankment is still common with older combines, but larger, tanker-type combines deposit bags directly on the embankment by the dam.

Source: Adapted from Rice II, Chapter 2, p. 32.

own tractors. Those who own their tractors claim that, because of inclement weather and floods, availability is crucial to the cycle of plowing and field preparation. The combine is seen as a means for harvesting paddy quickly and thus reducing loss from spoilage due to rainfall and flooding of the rice paddy. Furthermore, since wet paddy takes a longer time to dry, farmers would thereby incur additional drying costs.¹⁴

Land preparation costs in 1978 varied between G\$12.00 and G\$15.00 per acre, while the rental prices for private combines, which were generally in line with the GRB's prices, varied between G\$2.00 and G\$3.00 per bag. Subsequently, however, the GRB raised its rental prices for combines from G\$2.00 per bag to G\$2.75 per bag for dry paddy and G\$3.00 per bag for wet paddy. In 1978, four percent of the larger farmers owned their own combines, many purchased since 1961. Because of the high purchase price of these machines, the majority of farmers, 66 percent, hire their services from private individuals and 30 percent hire from the GRB. Price quotations for tractors and combines for 1967 and 1978 are listed in Table 9-2. The trend toward tractorization and other mechanization of the rice industry may be gauged from Table 9-3.

Between 1973 and 1978 the funds disbursed by the Guyana Cooperative Agricultural and Industrial Development Bank (Gaibank) to the rice industry amounted to G\$8.5mn. Of this total, G\$4.9mn (58

¹⁴Rice II, Chapter II, p. 37.

Table 9-2

Agricultural Machinery Price Quotation
(G\$)

Item	1967	1978	Percent Increase
Massey-Ferguson			
165 Tractor	6,400	33,000	416
135 Tractor	4,900	22,000	349
400 Combine	30,000	120,000	300
Tractor parts:			
e.g., piston rings	3	48	1377
Combine parts:			
e.g., chain	1,000	5,000	400

Source: Adapted from Rice II, Chapter 2, p. 42.

Note: Given an inflation rate of approximately 20 percent in 1980, and increasing import prices, the current prices for agricultural machinery will be much higher than those in Table 9-2.

Table 9-3

Investments in the Rice Industry, 1973-78
G \$'000

Category	1973/74		1975		1976		1977		1978		Total	
	Number	Value	Number	Value	Number	Value	Number	Value	Number	Value	Number	Value
Tractors	54	974	51	1,112	36	839	34	936	28	1,010	203	4,871
Oxen (pairs)	27	34	61	68	62	79	38	69	26	45	214	295
Combines	10	379	5	328	--	--	2	200	2	310	19	1,217

Source: Adapted from Guyana Cooperative Agricultural and Industrial Development Bank, Annual Report, 1978, Appendix I, "Investments made in the Rice Industry, 1973-1978," p. 34.

percent) were spent on tractors, G\$.3mn (4 percent) on oxen, and G\$1.2mn (14 percent) on combines.¹⁵ The total number of units in Table 9-3, 203 tractors, 214 pairs of oxen, and 19 combines, may seem small, but this does not contradict the view that the rice industry is capital intensive. The explanation is that the majority of farmers rent machinery for plowing and land preparation and harvesting, either from private owners or from the GRB. This method of machine deployment avoids overinvestment in machinery by farms too small to use them efficiently. It is also an understandable response to an unwillingness on the part of many farmers to return to traditional technology.

The concern about rice production technology, however, is not primarily a small farm problem. From the standpoint of the farmer, mechanization of rice production must be weighed against its potential to increase productivity and output and to enhance income. From the standpoint of economic planners, mechanization must be weighed against national objectives such as employment creation, alternative rice technologies, and subsidization.

Rice production technology must also be reliable and dependable. In the MMA area and in Guyana as a whole, one of the principal complaints is that tractors and combines are not always available for plowing and land preparation or for harvesting. Farmers report that in the latter case, paddy is often left to rot in fields because of an insufficient number of reaping machines.

¹⁵ Guyana Cooperative Agricultural and Industrial Development Bank, Annual Report, 1978 (Georgetown: Guyana), p. 11.

That tractors and combines are not always available when needed is attributed to: (a) the deterioration, frequent breakdown, and disrepair of many of these machines (with average age of 10 to 12 years and some as old as 15 years), (b) lack of spare parts over the past four years due to recent import restrictions on machinery and inadequate foreign exchange, and (c) a situation in which some farmers who hitherto rented their machines to the GRB were withholding them from that institution ("locking them up") because they disagreed with its policies, especially paddy pricing policy.

Even if scarcity of farm machines has led to appreciation of their market value, which in turn offsets some of the yearly depreciation,¹⁶ the condition of these machines contributes to higher production costs. First, if farm machinery is underutilized it is reasonable to expect high capital cost per unit of output. Second, frequent break-down and repair will result in high overhead and maintenance costs. Third, if there is no serious labor bottleneck in the rice industry, then that labor is available for land preparation and harvesting in conjunction with less capital intensive farm machines. Tractorization may indeed be a substitution of high cost capital for low cost labor.¹⁷

In this context, one farmer explained that repairs to his tractors exhausted his income, that he depended on income from beef

¹⁶Income and Production of Guyana Rural Farm Households, Chapter IV, p. 8.

¹⁷Lele, The Design of Rural Development, p. 35.

cattle to maintain his machinery, and that, unlike himself, many farmers did not have sufficient funds to repair their machines. Another farmer reasoned that, given the nature of rice production technology, the high cost for farm machinery and maintenance was compounded by high fuel costs. In 1970, Guyana's oil bill was G\$23mn, 8.2 percent of the total value of imports and 8.7 percent of total export earnings. In 1979 the figures were G\$230mn, 29.3 percent and 31.2 percent respectively. The 1980 estimate was G\$390mn. Given the relatively low income from rice, it is almost impossible for new farmers to succeed.

In any situation technology should be geared to factor endowments as well as ecological conditions. Technology should not determine the structure nor form of an industry; the situation should be technology leading.

In the MMA area, and in Guyana, tractorization and other pulling type machines seem to have shaped and thus to have lead the industry. Furthermore, technology related institutions set up to aid the rice industry seem to hold that the use of adaptive technology is neither urgent nor critical. In 1980, for example, the Guyana National Trading Corporation, one of twenty six enterprises comprising the Guyana State Corporation and responsible for importing and distributing agricultural machinery and other inputs such as fertilizer, weedicides and pesticides, ordered ninety-eight Massey Ferguson Type 235 and 290 tractors from MF do Brazil with the expectation of increased productivity and production.

The GNTC considers tractorization a means to increase output and productivity in the rice industry. This is implied in the statement that "levels of agricultural production and foreign exchange earnings have an impact on our ability to import the needed agricultural machinery."¹⁸ The rationale here is circular: more rice producing machines will increase paddy production, which in turn will increase foreign exchange earnings, which would then enable the industry to import needed agricultural machinery. But does the rice industry need capital intensive technology for increased output and productivity? Would such technology not exacerbate the problems of unemployment and underemployment?

It is very difficult to reconcile the use of capital intensive technology such as combines to harvest two hundred thousand acres of rice paddy when, for instance, one and one half million acres are harvested by hand in Sri Lanka. The challenges, then, to the MMA-ADA and to national economic planners are (a) to break, or at least to modify, the tractor mentality which pervades the rice industry, and (b) to encourage the use of and promote adaptive yield increasing technologies using low cost implements with linkages to small scale industry.

¹⁸Guyana Chronicle, August 15, 1980, p. 24.

Markets: Trends and Prospects

The Domestic Market

Demand. In 1977 the rate of domestic disappearance of rice and by-products was approximately 90 to 95 kg. per capita. Domestic disappearance of rice and its by-products includes on and off-farm family rice consumption, on-farm retention of seed paddy, disposal of by-products such as bran for use as livestock feed, and rice husk used (a) as fuel in processing rice, (b) by non-rice producers as animal feed, and (c) simply discarded as waste.

Domestic disappearance of rice is positively related to its importance in the local diet in which it is the primary staple. It is also a function of import substitution policies that have substituted rice for flour and potatoes and, until a few years ago, have subsidized rice sales. Subsidies to the livestock industry have also generated increased demand for rice by-products.

In 1977 on-farm demand for paddy amounted to approximately 52 thousand metric tons, demand for paddy and rice by-products from local mills amounted to 99 thousand metric tons, while off-farm demand for rice and rice by-products amounted to 53 thousand metric tons and 7 thousand metric tons respectively. Estimates for 1990 appear in Table 9-4.

While off-farm consumption for each of Guyana's major consumption areas--Essequibo Coast, Essequibo Islands, West Demerara, East Demerara, West Berbice and East Berbice--is expected to increase by about 34 percent between 1977 and 1990, there is much variation in the

Table 9-4
Estimated Domestic Demand for 1990

Categories	Metric Tons (000)	Percent Increase over 1977 Consumption
Paddy		
On-farm demand	75	44
Demand by local mills	165	67
Rice		
Off-farm demand	71	34
Rice by-products		
Off-farm demand	9	29

Source: Adapted from Rice II, Chapter 6, pp. 2-3, and
Data Base: Exhibit D.2, "Product Flows--1990
Crop Year," pp. D-6, 7.

percentage increase in farm area disappearance. The highest increase--392 percent--is expected in West Berbice, and the lowest--19 percent--is expected in West Demerara. East Berbice, with an expected increase of 50 percent, comes closest to West Berbice.

The variation in farm area disappearance is due primarily to expected increase in production and to increased processing in these regions. For example, East Berbice, with Black Bush Polder, and West Berbice, with the MMA project, are expected to have large increases in

production. On the other hand, East and West Demerara, where all potentially productive rice land is under cultivation and for which no new rice development is planned, are expected to have small increases.

Now rice hull constitutes about 21 percent of paddy weight. This will be lost in processing. In a related situation, the estimated population increase for each of these regions is approximately 22 percent. Since these features are common to each region, they will not affect any variation in farm area disappearance.

Supply. Projected increases in domestic disappearance, however, will lag behind expected paddy production. Thus it becomes important that the GRB cultivate foreign markets.

The External Market

Demand. Rice exports peaked at approximately 105 thousand metric tons in 1967 but fell to about 47 thousand metric tons in 1974. By 1975 exports recovered to approximately 78 thousand metric tons. Between 1963 and 1977 export destinations fell from 35 to 12. Among the 23 lost were Canada, the United Kingdom, India, Hong Kong, Singapore, South Vietnam, and Bangladesh. Exports are now concentrated in the Caribbean Community and Common Market (CARICOM): St. Kitts, Jamaica, Grenada, Antigua, Dominica, Trinidad and Tobago, Montserrat, St. Lucia, St. Vincent and Barbados, in addition to Martinique and Guadeloupe.

The concentration of rice exports to Caricom is attributed primarily to the following:

1. Steaming distances between Guyana and the Caricom countries, when compared with distances to Canada, Rotterdam, or London, are much shorter.

2. Large capacity vessels, usually over 15,000 tons capacity, are best suited for transoceanic voyages but cannot berth at Georgetown or Corriverton. Corriverton, located on the west bank of the Corentyne River, the boundary between Guyana and Suriname (Dutch Guiana) ships between 30 and 40 percent of the rice industry's exports.

3. The common external tariff on rice in the Caricom is 15 percent. Since Guyana is a Caricom member, no duty is levied on its rice exports to other member nations. This permits Guyana to charge world prices and remain competitive within the Caricom.

4. The growth in Caricom's per capita consumption, combined with population growth, has raised total Caricom consumption to a point where Guyana cannot currently meet Caricom demands. Total consumption in Caricom countries has risen from 128,200 tons in 1963 to 181,100 tons in 1977, an annual average growth in ten years of 3.9 percent. Fueling this growth of 3.9 percent has been an annual average growth in per capita consumption of 2.4 percent, plus a population growth of 1.5 percent in the ten year period from 1968 to 1977.

5. Jamaica's rice requirement consists of both parboiled and white rice. Until 1975, Jamaica imported most of its white rice from the United States. With the establishment of Caricom, Jamaica's imports from the United States declined rapidly from 23,000 tons in

1971 to four tons in 1977. The opening of the Jamaican market was an added reason for Guyana to supply white rice to meet Caricom demands.¹⁹ Guyana's rice exports to Caricom countries are, however, insufficient to meet their consumption needs. Between 1974 and 1977 Caricom countries imported about 93 thousand metric tons of rice a year. Of this amount, Guyana supplied about 68.5 thousand metric tons (74 percent). The MMA project and Rice II were expected to increase rice exports and thus fulfill CARICOM's consumption needs.

Within Caricom, Jamaica, Trinidad and Tobago, and Barbados accounted for 87.6 percent of Guyana's rice exports between 1974 and 1977. Jamaica, preferring white long grain rice, purchased an average of 29.5 thousand metric tons per year during this period, and accounted for 43.1 percent of rice exports to Caricom. Trinidad and Tobago purchased approximately 24 thousand metric tons per year and accounted for 35 percent of Caricom's rice imports from Guyana. Barbados purchased about 6.5 thousand metric tons per year and accounted for 9.5 percent of Guyana's exports. Trinidad and Tobago seemed to have equal preference for white and parboiled rice, while Barbados prefers parboiled rice.

Guyana's exportable rice surplus is expected to be about 235 thousand metric tons by 1990. Projected Caricom imports from Guyana by 1990 amount to 112 thousand metric tons. So, according to these projections, Guyana by 1990 must necessarily seek markets beyond Caricom.

¹⁹Rice II, Chapter II, pp. 61-62.

While there are four rice producing countries in Caricom, in the Greater Caribbean region with 12 Caricom and 24 non-Caricom countries, there are 17 producing countries. In this region Guyana ranks behind Columbia, Mexico, Cuba, Venezuela, and Dominican Republic in average output of milled rice. In 1977 the population of the Greater Caribbean region was approximately 150 million people. Total rice consumption was about 3.2 million metric tons, while per capita consumption was approximately 21.4 kilograms. However this statistic is dominated by Mexico, whose population is approximately 41 percent of the region's population and whose per capita consumption is only 6.1 kilograms. Per capita consumption would be higher in many of the countries in this region. In this potential market, Guyana is likely to face competition from Uruguay, Argentina, Brazil, Colombia, and Venezuela, each with a potential for increased rice production.

Other potential markets for Guyana's rice are Europe, a chronically rice-deficit market, and Canada. In 1977 the European Community consumed 1.06 million metric tons, of which 900 thousand metric tons were imported. Per capita consumption in 1977 was 4.1 kg. and the annual average growth of consumption was 4.2 percent. Italy and France are the only two rice-producing countries in the Community. Italy's production has been steady and that of France has been declining. Among the Central and Eastern European (CEE) countries are seven rice producing nations that produced 1.63 million metric tons (70 percent of the CEE's consumption) in 1977. Retained imports were 746 thousand metric tons. Per capita consumption was 5.3 kg per year and the annual average growth of consumption was 6.8 percent.

It has been suggested that, as a condition for penetrating these markets, the GRB should obtain market information about (a) potential exports of cargo (husked) rice, particularly to European countries, (b) increased capacity to meet a rising demand for quality parboiled rice, (c) expansion of markets for broken grains required for specialized purposes, and (d) restoration of its packaging machinery to meet the demand for packaged rice from current customers.²⁰

Supply. With full drainage and irrigation, including the Kabawer Scheme, the MMA project was expected to add approximately 18.7 thousand metric tons of rice paddy to Guyana's rice output by 1990. Excluding the Kabawer settlement, the contribution would fall to about 11.5 thousand metric tons. A further problem, in meeting foreign demand, common to the MMA area and the industry as a whole, is the rate of conversion of paddy into rice if there is much paddy in the system.

In keeping with decentralization and devolution, some small, single stage mills passed from GRB's control and are now operated by Regional Democratic Councils. In the MMA area the Regional Democratic Council operates two of these mills in Region No. 4 and two in Region No. 5. But, prior to 1983, rice milled at these and other GRB mills as well as in the private sector was channeled to the local and foreign markets through the GRB, the authorized distributor up to that time. Again, in response to decentralization, to pressure for less

²⁰Rice II, Chapter III, p. 91.

control over the rice industry, or to appease farmers' dissatisfaction with GRB's rice and paddy prices, the government has since modified distribution regulations and allowed farmers to sell all their rice in the domestic market if they can do so.

Currently GRB's control over rice distribution covers that processed at its mills. According to a GRB official, rice supply from its mills is insufficient to meet standing commitments so that the modified regulations may have set the stage for limiting supplies to foreign markets. Further, said the official, as of August, 1983, no private miller had sold any rice to the GRB, thus reducing this institution's capacity to ship rice abroad. One explanation of these events is that farmers are able to increase their income by processing and selling parboiled rice in the domestic market at G\$100.00 per 180 lb. bag rather than at GRB's price of G\$69.00 per 180 lb. bag. Beyond this, there is evidence that farmers and/or millers were smuggling rice in trawlers and other private vessels to Caribbean countries and Suriname, where they receive prices higher than those at GRB.

USAID, Guyana, contends that GRB mills are inefficient compared to privately owned mills, and that this caused rice exports to decrease from about 78 thousand metric tons in 1981 to about 35 thousand metric tons in 1982. USAID was not optimistic about increased exports in 1983 but the International Monetary Fund had projected exports at approximately 50 thousand metric tons.

Whether exports fell in 1982 and 1983 and thus caused Jamaica, Guyana's largest market, to seek an alternative source of supply, or

whether it was economic aggression by the United States government against Guyana as claimed by Guyana's government, the GRB acknowledged that there was no supply of consequence to Jamaica in 1982 and the first half of 1983. During this period Jamaica received rice aid in kind from the United States under the United States Agricultural and Trade Development and Assistance Act of 1954 [Public Law (PL) 480].²¹ In August 1983, however, the GRB was arranging renewed supplies to Jamaica.

USAID's argument concerning the efficiency of GRB's mills seems less persuasive when viewed against the Rice II study (unless productivity in GRB's milling operations has declined since 1979) which found that:

1. the GRB, with access to public funds and government guaranteed loans, constructed high-capacity milling plants at Somerset and MARDS.

2. inadequate investment capital and adverse conditions in the rice industry made it difficult for the private entrepreneur who often owned an outmoded, inefficient single-stage mill to obtain enough funds to upgrade his operation.

3. multi-stage mills are better for processing the superior quality rice that command premium prices.

²¹For a discussion of PL 480, see Herrick and Kindleberger, Economic Development, 4th ed., pp. 447-449.

4. the average plant capacity for all GRB mills is 3.75 tons per hour (with the Regional Democratic Councils now operating some of the smaller mills that were formerly controlled by GRB, the average plant capacity should now be higher), while the average capacity for private multi-stage mills is only 1.08 tons per hour, and .56 tons per hour for single-stage mills.

5. that even if all mills currently idle were placed in production, there would still be a need to increase milling capacity by 23 percent to achieve production levels targeted for 1990.²²

USAID claims that Guyana's major donors--the World Bank, IDB, and itself--agree that the GRB should lease or sell most of its mills to the private sector. On the other hand, the Rice II study argues that "the need for large-scale Government supported milling operations is apparent, if the industry is to be able to produce in a timely fashion the quantity and quality of rice demanded by the expanded export trade."²³

Price Competition. Farmers and officials of the MMA-ADA and USAID argue that export prices for Guyana's rice are much higher than those of other rice exporting countries, and as a result, the rice industry is less competitive than its international counterparts even in the Caricom market.

Yet to base competitiveness on export prices from different producing countries is risky at best. Export prices are based on

²²Rice II, Chapter V, pp. 12-14.

²³Ibid., p. 15.

bilateral agreements, on differences in grades and methods of packaging, on government intervention, and on other institutional regulations such as Caricom's Common External Tariff (CET) on imports from non-member countries.²⁴ Furthermore, different markets pay different prices for a given grade of rice.²⁵ On the other hand, a world price for rice--a benchmark price, could not be used as a competitive gauge because it fluctuates significantly from one year to the next.²⁶ As a rough measure however, the Rice II study used yearly average rice prices published by International Financial Statistics for rice exporting countries based on the ratio of total value of exports to metric tons of rice exported.

Table 9-5 lists F.O.B. prices for New Orleans, Bangkok, Rangoon and Georgetown, from 1971 to 1977. The table shows that export prices from Georgetown have been higher than New Orleans' in 1976 and 1977, than Bangkok's in 1975, 1976, and 1977, and than Rangoon's for every year listed.

Comparatively higher prices for rice exports from Guyana since 1974 can be explained as follows:²⁷

²⁴For a discussion of Caricom's Common External Tariff (CET), see The Commonwealth Caribbean: The Integration Experience (A World Bank Country Economic Report), [Baltimore: The Johns Hopkins University Press, 1978], pp. 9, 14, 35, 37.

²⁵Rice II, Chapter III, pp. 104-105.

²⁶Agricultural Price Policies and the Developing Countries, p. 236.

²⁷Rice II, Chapter III, pp. 107-109.

Table 9-5

Average F.O.B. Rice Prices, 1971-77
U.S.\$ per metric ton

	1971	1972	1973	1974	1975	1976	1977
New Orleans	192	216	397	556	419	309	333
Bangkok	129	147	350	542	363	255	272
Rangoon	75	77	121	385	258	172	182
Georgetown	151	160	229	426	399	402	389

Source: Rice II, Chapter III [Exhibit 111.E-5], p. 105.

1. The quality of rice exported in recent years has improved by two domestic grades. Relatively, the price of Guyana's best export grades--White First Quality, and White Assorted Grades--peaked in 1974 at US\$423 per metric ton, and US\$521 per metric ton respectively. By 1977, the price of these grades had only declined by 13 percent, to US\$368 per metric ton, and 14 percent, to US\$448 per metric ton respectively. Between 1974 and 1977 however, the average price of rice from New Orleans dropped by 40 percent, from Bangkok by 50 percent, and from Rangoon by 53 percent.

2. Since rice exports are concentrated in the Caricom countries, Guyana's F.O.B. prices can be higher but still competitive with those of other rice exporting countries more distant from the Caricom market.

3. Because of Caricom's 15 percent common external tariff, Guyana's F.O.B. prices could be higher than non-Caricom F.O.B. prices. Again, Guyana is competitive in this situation.

4. Guyana's exports of packaged rice have increased to 45 percent of total rice exports. The prices for packaged Assorted Grades and Indian Maid average about 9 percent and 17 percent more than that for rice shipped in bulk. Consequently, higher prices for packaged rice are responsible, in part, for the higher average F.O.B. price.

Despite the foregoing, the question concerning competitiveness of Guyana's rice industry assumes greater importance when viewed against markets much farther than the Caricom countries. Guyana would not have the advantage of Caricom's Common External Tariff, nor would it have an advantage in lower shipping costs due to its proximity to the Caricom countries. Given reliable supply and improved quality and grades, Guyana may service these markets, but its net returns will certainly be lower than that from the Caricom market.

CHAPTER 10

THE MMA TODAY: PROGRESS AND LESSONS

The New Loan¹

The Stage II of Phase 1 works have recently (August, 1984) been funded by the IDB. During an interview in August 1983, one farmer was asked to comment on the MMA-ADA's failure to secure concessionary IDB funds for the Stage II works, and on the government's criticism of and local reaction to the United States veto of the loan request. He stated that (a) the MMA-ADA would have no problem in securing an IDB loan on "commercial" terms; (b) the interest rate would probably be about 8 percent; (c) the rhetoric and "local noise" were intended to show how good the government is, after it had negotiated the loan; and (d) "those in the inside know this very well, that is, they know what the public does not."

The farmer, it seems, was privy to inside information, for the IDB has provided funds for the truncated works on commercial terms. IDB funds for the Stage II works assumed greater importance because "the magnitude of the work goes beyond simple rehabilitation [the Guyana government considered the possibility of rehabilitating 'some existing antiquated systems' but learned that these could only provide limited, primarily drainage service], and could not be carried out

¹The developments on which this section is based occurred after the study was completed. I feel, however, that they are sufficiently important to be recorded in this chapter rather than in Chapter 6.

even by local contractors in Guyana in a reasonable period of time."²
In turn, funding was predicated too on the condition that "changes in the price and subsidy mechanism--once thought to be the primary constraint on production and productivity--would provide little marginal incentives if supporting institutional and physical improvements were not introduced."³

The estimated cost for the secondary, drainage, and irrigation works is US\$53.6mn (G\$160mn). Of this amount, the IDB will provide US\$42.0mn (78.4 percent) from its Ordinary Capital funds at a variable interest rate which stood at 11 percent when the loan was approved. The loan will be amortized over 25 years, including a 4.5 year grace period. Counterpart funds amounting to US\$11.6mn will be provided by the Guyana government.

With the completion of the flood control works commissioned on August 17, 1983, the MMA project has achieved at this point one of its primary objectives--water control in the project area. On August 17, 1984, the MMA-ADA signed a contract, again with Ballast Nedam N.V., to construct the Stage II works. The completion of these works is scheduled for 1987. Thus, the MMA project will in a few years realize more of its objectives. With a net present value estimated at

²Inter-American Development Bank (IDB) Document, PR-1279-6, January 9, 1984, p. 2. This document was reviewed at the Embassy of the Cooperative Republic of Guyana, Washington, D.C.

³Ibid., p. 3.

US\$38.7mn, the Stage II works are expected to yield an internal rate of return of approximately 27.8 percent.⁴

With water control, drainage, and irrigation in place, the MMA-ADA will be able to bring an additional 37,000 acres of land under cultivation, and increase production and productivity in the rice industry. Increased productivity will come from cultivating improved paddy varieties and better farm management. It will also be able to set the stage for increased rice exports and earnings ("Markets: Trends and Prospects" in Chapter 9). The net increment in foreign exchange attributed to the Stage II works is estimated at US\$15mn per year. There will thus be a greater contribution from the rice industry to the Gross Domestic Product and increased incomes for about 3,000 farmers in the project area.

Now construction of the secondary works is a component of the government's agricultural development program that "includes the execution of a carefully monitored investment program in agriculture." The IDB has reviewed and the Guyana government has committed itself to implement, by the end of 1984, a "Plan of Action" (jointly developed with IDB's staff in compliance with the conditions for the Bank's loan to the agricultural sector) covering changes in pricing and subsidy in the rice industry, in rice marketing, grading, and milling, and in placing greater focus on research and extension.⁵ These changes, in

⁴Ibid., p. 16. Note: This rate of return seems high when compared to that of 12.08 percent for works considered under Alternative "D" (Chapter 6, p. 126) which was expected to provide full flood control and drainage and irrigation in the project area.

⁵Inter-American Development Bank (IDB) Document, pp. 3-4, 10.

addition to the consolidation of the agricultural development program projected for 1989, may generate such higher farm income in the project area that the target income of G\$9,000 could be realized in 1990.

The conditions attached to IDB's loan suggest that in the end the Guyana government opted for project success at the expense of its ideological stance and reconciled its dreams to economic reality. Moreover, the Guyana government may have chosen a path which brings to the economy and farmers involved with the project more immediate if not greater benefits.

Tensions between the Guyana government and the United States administration, the IDB, and the USAID arose, in part, because they pushed the Guyana government to undertake macro-economic reforms that included changes in the operations of the rice industry. The PNC did not enthusiastically embrace such suggestions, and still may not.

Yet, perhaps as a compromise, the Plan of Action calls for (a) "a new pricing mechanism which will allow for the free determination of the purchase price of rice, with a minimum price established to protect producers from large fluctuations in external prices;" (b) opening rice exports "to private producers and millers, with the exception of the Caricom market;" and (c) "major institutional changes with the break-up of the Guyana Rice Board and a transfer of its milling and marketing functions to new institutions."⁶

⁶Ibid., p. 4.

According to a USAID official, these reforms were crucial if Guyana were to get the loan, and likewise other loans to the "private sector." Possibly the Rice II (USAID) loan may be renegotiated under these new arrangements since the IDB in its negotiations with the Guyana government was "in close contact with the World Bank and the USAID, given their involvement and interest in the rice sub-sector."⁷

In addition the Guyana government, upon IDB review, will undertake land reforms designed to insure that (a) agricultural plots will be targeted at 30 acres, (b) all state owned lands and lands not beneficially occupied will be distributed with priority given to farmers who cultivate less than 30 acres, and (c) the maximum size for new farms will be 100 acres.

In one way, the Plan of Action addresses ideas stressed by the current Principal Planning Officer of the MMA-ADA. He argued for rice farms ranging in size from a minimum of 30 acres to a maximum (optimum) of 100 acres, and reasoned that the keys to the project's success are a vibrant and active extension service, progressive land reform, adequate and timely operational maintenance, and sufficient inputs for agricultural production.

In another way, it addresses farmers' complaints that they receive low paddy prices, generally in installments, from the GRB and that in many cases grades given their paddy at GRB mills are unfair. It also addresses the complaint that delays for as many as two days in discharging paddy--for example, at MARDS--and an insufficient supply

⁷Id.

of rice bags cause equipment tie-ups both at the storage area and in the field. The relaxation of the statutory rule that gave the GRB sole authority to purchase and distribute rice was undertaken to correct some of these problems.

Heretofore, farmers had no knowledge of how much taxes they would be assessed for the project's maintenance and for recovering its capital outlay. One farmer surmised that they would be "heavy." At this stage, specific assessments have not been published. However, the "Plan of Action" stipulates that capital recovery costs will be charged on a graduated basis to farmers who cultivate private land ranging from 30 acres to 100 acres. The 100 acre farm will be assessed full recovery costs.

Since the Stage II works will be completed by 1987, efforts must be redoubled to bring on line those improvements that seek to develop "an integrated industry-wide processing and marketing system" if the industry is to accomodate projected output for 1990. The Rice II facilities--for drying and storage, milling and processing, reducing after-harvest loss, and processing better quality paddy--will be needed.

Lessons

Projects are problem ridden. What differentiates them--their success or failure--is the degree to which related problems are overcome. The Mahaica-Mahaicony-Abary project has not been immune from problems, but recently the Guyana government and the MMA-ADA, in

securing funds to construct the truncated secondary and tertiary works (Stage II, Phase 1), have surmounted a major barrier that threatened the project's success. Farmers, in the absence of the Stage II works, could not possibly realize full benefits from the project.

Ideology and the MMA

As indicated earlier in this work, the MMA project is a component of the PNC's scheme to break economic and institutional structures that hinder socioeconomic change in the economy. It is intended to bring the society closer to economic independence. However, circumstances relating to the project's implementation suggest that for countries such as Guyana, achieving economic independence--a country's sovereign right and ability to pursue its economic affairs free of direction from other countries or institutions, and without ideological compromise--is a difficult task at best.

First, there is the question: What really is Guyanese nationalist ideology? It has been termed ambiguous. Yet a country's ideology shapes social roles and underpins social change. It is thus the "sole source of group or collective coherence."⁸ If the ideology is ambiguous, then such unifying force loses its effectiveness as it splinters into smaller forces that move in different directions. Social change then becomes more difficult. This seems to be the situation in Guyana.

The major political parties claim Marxism/Leninism as the prevailing philosophy. But is this Guyanese ideology? Do the masses

⁸Solo, p. 35.

gear their lives along Marxist/Leninist principles? This is not evident. Does the "little man" on whom economic power is supposed to devolve "do" things such that he eagerly and consciously lays the groundwork for socialist transformation of the society? Again, this does not seem to be the case. There are cooperatives--a movement that is supposed to devolve power on the "little man" and promote socialism in the society. This movement, however, stands at the periphery of activities in other sectors of the economy, as in the project area. One official of the MMA-ADA sees the movement this way: "it is an ideal that does not seem to work."

"Independence" and "Dependence"

Second, the decisions to implement both the reduced scope of works (water control) and the Stage II, Phase 1 Works (secondary drainage and irrigation) were made against the backdrop of "dependence" rather than "economic independence." Faced with cost overruns, and informed by the IDB that the project must be implemented within the initial funding arrangements, the Guyana government and the MMA-ADA proceeded with the reduced scope of works, having truncated the secondary and tertiary works. They opted for no other alternative; perhaps there was no other acceptable alternative. Again, according to a MMA-ADA official, they frowned upon funds from the international capital market with interest rates ranging, for example, from 15 percent to 20 percent. IDB funds were needed to construct the project and so the Guyana government and the MMA-ADA accepted IDB's "game plan."

Conditions attached to funding the secondary drainage and irrigation works belie the notion of economic independence much more than those for the main physical works. They also underscore the growing influence of international lending agencies on domestic economic policies and programs. Recall, for instance, domestic macro-economic and related reforms set out by the International Monetary Fund (IMF) as conditions for financial support for balance-of-payment adjustments, and for rescheduling a country's debt.

In response to the U.S. government's veto of Guyana's initial request to the IDB for funds to construct the secondary and tertiary drainage and irrigation works, and its cancellation of funds for Rice II and for Small Farm Development in the Black Bush Region, the Guyana government had argued that the U.S. administration was subjecting it to economic pressure designed to cause a deviation or abandonment of its socialist path, and to alter substantially the structure of its economy. The issue here is that the Guyana government was being asked to undertake "macro-economic policy reforms" in the rice industry as well as in other sectors of the economy. The PNC protested these requests. Yet in securing IDB funds for the Stage II of the Phase 1 works, the Guyana government agreed to implement, by December 1984, reforms in the rice industry that will move the industry closer to becoming a "privatized" operation. These decisions cannot be cited as testimony for economic independence nor for holding to a socialist path.

Decentralization

There are related and certainly legitimate concerns about what the PNC means by "decentralization and devolution." Given "the doctrine of the paramountcy of the party"--the vanguard (PNC) party--it seems that "decentralization and devolution" translates into "monopoly of the ruling party."

In the project area, for example, persons contend that the Chairman of the Regional Democratic Council, a member of the PNC organization, operates in a less than democratic fashion, and, further, issues directives to the MMA-ADA--which, according to the MMA act, is the only institution empowered to direct the project. There are officials of the Authority who are intimidated by such intrusion. They are conscious of the connection between the Regional Chairman and the PNC, and fear personal setbacks if they oppose him.

A bigger question is this: who should do what in the project area? For example, the Regional Minister is supposed to coordinate all activities of the sectoral ministries in the region, but at the same time the MMA-ADA falls under the Ministry of Agriculture; and, what is more, regional sectoral activities are, in effect, centrally directed by the respective ministries in accordance with their sectoral plans. In short, there are overlapping systems, particularly with respect to jurisdiction, in the region. The regional system, then, suggests structural confusion.

Further, regional and local institutions which appear in Figure 5-1, The Regional Structure, and Figure 5-2, Reorganized Local

Government System, reinforce PNC control of local initiatives. They are "broker institutions." In like manner, the PNC retains control of those rice processing operations that were formerly controlled by the GRB, and which are now operated by the area's Regional Democratic Council.

Indians, Blacks, and Benefits

Now, given different cultural propensities between Indians and Blacks regarding Guyana's rice culture, in addition to different forms of socioeconomic adaptation to historical forces in the society, more benefits from the project are likely to accrue to Indians who comprise the majority of rice farmers in the project area than to Blacks. Irrespective of these circumstances, which explain relative benefits accruing to Indians and Blacks from the project, charges have been made that Blacks are treated unfairly: for example, in consideration for farm-lands in the project area, and with respect to services distributed by the Regional Development Chairman, an Indian.

Many of these charges may be unfounded. Some may stem from envy; others, on the other hand, may be true. Nevertheless, impressions correctly or wrongly held about unequal treatment in the project area may arouse latent suspicions and antagonisms between Indians and Blacks, strain their relationships, and work against sociocultural integration in the villages. Hence, those responsible for operating and servicing the project should attempt to correct such impressions or, at least, to minimize unequal access to the opportunities which the project affords.

Summary

In summary, then, flood control and drainage and irrigation of the MMA area will mark the project's success from a technical or engineering standpoint. These, in turn, will enable the MMA-ADA to bring additional acreage under cultivation and thus to realize another of its objectives: increased output in the rice industry. Relieved from the threat of flooding on the one hand and from inadequate water supply on the other, increased output and productivity, together with institutional changes in the farm-to-market chain, will lead to increased farm income in the project area. Here the target income objective is clearly in sight.

Increased productivity will come from the cultivation of improved paddy varieties that are already in use. In this area, the research and extension services of the Mahaicony-Abary Rice Development Scheme (MARDS) have been instrumental and supportive. Increased productivity must also come from the use of available and adequate amounts of inputs such as fertilizer and from better farm management. The former depends on the ability to import such inputs, which increased income in the industry will itself help to achieve. It depends too on changes in the channels of control and distribution. Although efforts have been devoted to these concerns--for instance, moving this responsibility from the GRB to the Regional Democratic Council--some farmers are dissatisfied with the arrangement and see the Regional Democratic Council as a "broker institution," an extension of PNC control, and dislike this attempt at devolution. Better management

could come about through increased farmer education and extension services. Here again, the Plan of Action seems to address the need.

These improvements support the export objective, critical to acquiring much needed foreign exchange. In addition, earnings from the rice industry are earmarked for further development programs in the economy.

The employment objective and the Kabawer settlement objective are in doubt. At best, they may be partially achieved. The history of agriculture in Guyana, including low incomes, tends to discourage persons, especially those below thirty-five years of age, from seeking a livelihood from farming. Land reform, prospects for higher farm income, and other incentives may, however, tend to support both objectives.

Finally, the orientation towards capital intensive technology in the rice culture should be reexamined. There is need, it seems, for a more harmonious relationship between development planning, technology, and production in the rice industry. Apart from the question about which is better for the rice industry, capital intensive technology will do less for the employment objective than adaptive yield increasing technologies. These should include low cost implements with linkages to small scale industry.

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APPENDIXES

APPENDIX A

PRODUCTION: COSTS AND RETURNS ON RICE (G\$_s)

Land Preparation (Using MMA/ADA Machinery)

Operation	Hours per Acre	Cost per Acre*
Plow, 1st cut	1.0	16.00
Harrow, 1st cut	0.8	12.80
Harrow, 2nd cut	0.5	8.00
Spike Harrow	0.5	8.00
Leveling	0.4	6.40
Smoothing	0.3	4.80
Total	3.5	56.00

*Guyana Rice Board Prices (1979)

Seed

Variety	Sowing Rate	Cost per 140lbs.
Rustic	120 lbs. per acre plus a 15 percent safety factor (approximately 140 lbs. per acre)	G\$25.25 at commercial prices

Fertilizer

Type	Cost per 112 lbs. at Commercial Prices	Lbs. per Acre	Cost per Acre
Urea	15.97	146	21
Triple Super Phosphate	17.82	62	10

Plant Protection

	Rate per acre	Cost per acre	
Herbicides			
Propanil	1.5 pints	1.50	
2.4D	1 pint	2.50	
Total			4.00
Insecticide			
Monocrotophos	10 fl. oz.	12.00	
Total			16.00

Hired Labor

Operation	Man days per acre	Cost per man day	Cost per acre
Broadcasting seed	approx. 0.33	11.00	4.00
Harvesting and paddy transport	approx. 1.67	11.00	18.00
Total			22.00

MMA Machinery

Harvesting and Transport of Paddy No Cost

Family Labor (No Financial Cost)

Operation	Family man-days per acre
Pre-germinate seed	0.10
Sowing	0.00
Hand weeding	0.50
Chemical weed control (application)	1.00
Pest control (application)	1.00
Irrigation	3.00
In-field maintenance	2.00
Fertilizer (application)	0.50
Total	8.10

Average Paddy Price (140 lb. bag) at Commercial Prices

Percentage of Output	Grade	Price
10	Extra A	22.00
50	A	20.50
30	B	19.30
10	C	17.50

Average Price = G\$20.00

Source: Adapted from Kabawer Settlement Plan, Appendix 1, Paddy Production Costings, pp. 2-4.

APPENDIX B

PRODUCTION: COSTS AND RETURNS ON DAIRY FARMS

Estimated Technical Co-efficients (per annum)

Factors	Number
Calving	85%
Calf Mortality	7%
Adult Mortality (cows and heifers)	4%
Cull cows	15%
Cull heifers	15%
Extraction average for 250 days	500 gallons
Stocking rate, Animals/acre	1:1.2
Cows/total herd	39%

Herd Composition*

Category	Average Unit Value G\$	No. in herd	Livestock unit equivalent per animal
Service Bulls	1,500	--	--
Cows	1,500	28	1
Calves (0-9 months)	160	24	--
Heifers (9-24 months)	1,100	11	0.66
Heifers (2-3 years)	1,200	10	(average)
Total Herd		73	

*Total livestock
unit equivalents 42 (42 x 1.2 = 50.4 acres)

Deaths Per Annum

Category	Number
Cows	1
Calves	2
Heifers (9-24 months)	1
Heifers (2-3 years)	0
Total	4

Annual Sales

Category	Average Liveweight lbs.	Estimated Value, G\$*	Number Sold	Total Value of Sales G\$
Bulls/Steers (weaned)	260	455	11	5,005
Surplus Heifers	600	1,200	3	3,600
Cull Heifers	600	1,050	2	2,100
Cull Cows	800	1,400	4	5,600
Total animal sales				G\$16,305
Milk sales, 12,000 gallons at G\$2.0/gallon**				G\$24,000
Total Sales				G\$40,305

*G\$ 1.75/lb. liveweight (breeding stock G\$2.0/lb. liveweight)

**Number of cows lactating = $28 \times .85 = 24$

Gallons per lactation = 500 gallons

Gallons per year = $500 \times 24 = 1,200$ gallons

Price per gallon of milk on Abary River = G\$2.00 per gallon.

Initial On-Farm Investment

Category	Cost G\$
A. Fencing	10,068
B. Buildings (1) Farm House	30,000
(2) Farm Building (60 percent increase in size required)	25,600
C. Provision of central 'in block' drain/ distributor	90
D. Spray can	400
E. Milk containers	650
F. Miscellaneous farm tools and equipment (1 set)	300
G. Pasture establishment (10 acres per year)	1,748
H. Lying-up area	240
I. Corral/cattle crush	1,000
Sub Total	G\$70,096
10 percent physical contingencies	G\$ 7,009
Total	G\$77,105

Annual Interest and Amortization Charge [on investment capital]

Items	G\$ per annum
Fencing at G\$11,075, at 12 percent per annum over 10 years	1,960
Farm Building at G\$28,160, at 12 percent per annum over 40 years	3,416
Items D, E, F, and I, at G\$2,585, at 12 percent per annum 10 years	458
Item G at G\$1,922 at 12 percent per annum over 5 years	533
Total	6,367

Plus Replacement of Farm House over 40 years = 7,192

Annual Operating Costs for a 50 Acre Unit

Category	Unit	Cost G\$
A. Fencing, Maintenance	2.5 percent cost	252
B. Buildings Maintenance:		
1. Farm House	2.5 percent cost	750
2. Farm Building	2.5 percent cost	640
C. Pasture - Maintenance	G\$13/acre	650
Replacement 10 acres	G\$174.8/acre	1,748
D. Maintenance of in-field drain/ distributor (1 pass of Dondi digger)	G\$10/16.75/acre	30
E. Dairy Feed: (1) cows	G\$270/lactating cow/year	6,480
(2) others	G\$110/animal/ year	5,390
F. Veterinary Supplies	G\$10/livestock unit/year	420
	G\$5/livestock unit/year	210
G. Operation and Maintenance Charge Payable to MMA/ADA	G\$116/acre/year	5,800

H. Rent	G\$4/acre/year	200
I. Transportation		600
Sub Total, C through F		23,170
10 percent physical contingencies		2,317
Total		25,487
Plus Interest on working capital (12 percent per annum)		3,058
Interest/amortization of investment capital (see Initial On-Farm Investment)		7,192
Total cost per annum		G\$35,737

Net Returns--(50 Acre Dairy Unit)

Factors	G\$
Total returns per annum (see Annual Sales)	40,305
Total costs per annum (see Annual Operating Costs)	35,737
Net returns per 50 acres per annum	4,568
Net returns per acre per annum	91.36

Source: Adapted from Kabawer Settlement Plan, Appendix II, "Dairy Production Costings," pp. 11-15.

APPENDIX C

CONSULTANT'S TEAM IN GUYANA AND SUPPORT AND ADVISORY GROUP IN THE UNITED KINGDOM

1. CONSULTANT'S TEAM IN GUYANA

(A) ENGINEERING

Liaison Partner
Consultant's Project Director
Consultant's Project Coordinator
Construction Engineer (Force Account Works)
Resident Engineer (Force Account Works)
Planning Engineer
Contracts and Progress Engineer
Hydraulics Design Engineer
Structural Design Engineer
Design Engineer
Site Engineer (Investigations)
Site Engineer (HQ Construction)
Chief Resident Engineer
Deputy Chief Resident Engineer
Resident Engineer (Contract 1)
Resident Engineer (Contract 2)
Deputy Resident Engineer 1
Deputy Resident Engineer 2
Section Engineers
Chief Inspector of Works 1 (Training)
Chief Inspector of Works 2 (Training)
(Office Manager)
(Accountant)
Draughtsmen and Tracers

(B) INSTITUTIONAL STRENGTHENING

Team Leader
Data Processing Consultant
Engineer Consultant
Systems Consultant
Training Consultant
Legal Consultant

(C) AGRICULTURE

Team Leader
Extension Consultant
Applied Research Consultant
Soil Land Use Consultant
Livestock and Forage Consultant
Agricultural Machinery Consultant
Agricultural Economist

2. SUPPORT AND ADVISORY GROUP IN UK

Partner/Coordinator
Project Director
Project Engineer
Design and Contracts Staff
Institutional Strengthening Director
Agricultural Director
Institutional Strengthening Back-up
Agricultural Back-up

SPECIALISTS

Contracts
Engineering Design
Agriculture
Environment/Ecology
Hydraulic Research
Crop/Plant Breeding
Computer Application
Other Specialists

Source: MMA-ADA: Engineering Programme Progress Report for 1980
(Sir William Halcrow & Partners, May, 1980) Figures 5 and 6,
pp. 14-15.

VITA

Maurice Reginald Hoppie was born in Victoria Village, East Coast Demerara, Guyana, South America, on January 10, 1941. On completion of his secondary school program, he was employed as an assistant teacher at St. Aidan's Anglican School, Wismar, Demerara River.

Later he joined the Guyana Bauxite Company (now Guymine) at Linden, where he was actively involved in unionism. He was elected to the office of Secretary and President of the Clerical and Technical Employees' Branch of the Guyana Mine Workers' Union, and thus was a member of the Central Executive--the policy-making organ of the union.

He entered Knoxville College in Winter, 1969, and received a Bachelor of Arts degree in Economics, magna cum laude, in June, 1972. In September, 1972, he undertook graduate studies at the Graduate School of Planning, The University of Tennessee, Knoxville, having received a University Nonservice Fellowship. He then combined his academic pursuits with an instructorship at Knoxville College, in the Department of Business and Economics.

In August 1975, he was awarded the Master of Science degree; and, in 1979, as an Instructor in Economics, taught at The University of Tennessee, Knoxville. In 1980 he was employed as an Assistant Professor, Elizabethtown College, in the Department of Business. Mr. Hoppie, a member of the Association for Evolutionary Economics, was awarded the Doctor of Philosophy degree from The University of Tennessee, in March, 1985.