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A REVIEW OF AGRICULTURAL DEVELOPMENT PERFORMANCE
& STRATEGY FOR DEVELOPMENT

JAMAICA

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I INTRODUCTION

Historic Background

Jamaica with Cuba, Haiti and Puerto Rico comprises the Greater Antilles, located in the Western Caribbean. It is a composite of the many elements of its socio-cultural heritage. The vast majority of its people are descended from slaves, brought to Jamaica from Africa to labor on plantations. Plantation was undertaken in the plantation stage of Jamaican economic history to supply external markets.

Historically, the agricultural sector has been required to perform a number of roles, the main ones being provision of [a] foreign exchange, [b] employment opportunities and [c] food and fiber for domestic consumption. The agricultural sector, the most active of its economic sectors, accommodate an increasing portion (as of 1980 estimated at 37 percent) of the nation's total population.

Through the decade of the 1970's, Jamaica's economic development strategy (Manley's Administration) was one based on import substitution (ISI) which brought about rising government expenditures, rising tax burden and reduced national income starving the private sector of financial resources, thus greatly crippling the capacity of the agricultural sector to grow. In 1980, and at the height of Jamaica's economic crisis, a newly elected administration took office (Seaga's Administration). In an effort to restore economic growth, the Seaga's administration attempted to reverse the previous ISI strategy by launching an economic recovery program predicated on an export promotion strategy.

Methodology

In order to frame the content and scope of this paper, a definition of economic development was formulated.

Several development indicators linked to the definition of "development" were selected. Information and data were obtained in order to follow changes in growth over a 14 year time span (1970-1984). This period purposely covers the Manley and part of Seaga's administrations. Changes in agriculture GDP, rural incomes, productivity and production of traditional and non-traditional crops, and performance of the agriculture export/import markets are analyzed and conclusions reached.

Proximate causes for the poor performance of the agricultural sector are also discussed.

The role of the Government of Jamaica in the process of development are likewise discussed.

This paper also outlines a strategy aimed at promoting self-sustained development.

Chapter VIII quotes the various reference and other materials reviewed for this exercise.

II PERFORMANCE OF THE AGRICULTURAL SECTOR

Definition of Development

For the purposes of this paper, economic development is defined as growth in the agricultural sector characterized by positive changes in [a] agriculture productivity and production, [b] export vis-a-vis import levels, [c] employment and [d] rural income.

Development Trends

Table I shows that growth in the agriculture sector did not occur during the 14 year period. Real Gross Domestic Product (GDP) declined 17 percent on a per capita basis between 1970 and 1984. Agriculture was a consistently poor performer during the 1970-1984 period. It contributed between 7 to 9 percent of GDP. Agriculture continued to be a major provider of employment opportunities in the economy (37%). Real rural incomes declined 11 percent on a per capita basis over the 14 year period. Although agriculture's share of the export market grew steadily, the gap between export and import levels in terms of trade balance continued to favor imports.

Proximate Causes for Failure

The Manley Administration (1972-1980): Production for the local economy was encouraged through an import substitution strategy, which was characterized by artificial trade barriers; subsidized imported raw materials and other inputs, capital, domestic inputs; food price ceilings; an overvalued foreign exchange (FX) rate; and increasing commodity boards regulatory powers. Furthermore, the expansion of the government sector during the 1970 was considerable, which together with increases in oil

prices accelerated the general curtailment of private sector activity. Government efforts to curtail unemployment included absorption of displaced workers into the central government, acquisition by government of failed private enterprises, and expansion of employment in existing public enterprises.

Traditional and non-traditional crops commanded poor yields and performance during the 70-74 period. This may be attributable to rigid government control over the entire commercial process from field to market. The diversion by the public sector of earnings generated in these and the agricultural sector became a disincentive to production. The ISI policy itself, coupled with severe FX control policies and regulations imposed by the agriculture commodity boards, removed much of the incentive to produce both for export and domestic consumption.

Earnings in coffee, banana and sugar were not reaching the producers in proportion to their increase, and the overall FX earning potential was not being exploited due to the largely regulatory regime imposed by the commodity boards. In spite of preferential treatment for sugar and bananas in British and European Markets, the net effect appear to have caused a drastic decline in yields by 31, 22 and 18 percent in coffee, banana and sugar, respectively, between 1970 and 1975. Production was equally reduced by 34, 35 and 13 percent for the same crops and period of time.

Subsidies and price ceilings on imported foods retarded production and employment in domestic agriculture. Importers of food were de facto being subsidized by the over-valuation of the currency and by preferentially low import duties. Farmgate prices were controlled, and did not relate to movements in production costs. Imported inputs were not available when needed, and the administration of credit facilities were uncoordinated and poorly managed. In general, food crops productivity declined while cereal yields commanded a significant increase during the 70-75 period (Table II).

Preferential tax and FX regulations encouraged the adoption of relatively capital intensive production technologies and production by relatively inefficient firms for the domestic and soft currency Caribbean Common Market. Large central government subsidies to state owned enterprises placed a heavy burden on the public sector budget*.

*General government consumption increased 55 percent in constant terms from 1972 to 1980 (FAO).

As the shortfall of FX earnings deepened, an inordinate share of the burden was forced onto the private productive sector.

The Seaga Administration (1980-Present): In an effort to restore economic growth, Seaga's Administration began to reverse the Manley's Administration ISI strategy and launched an economic recovery program predicated on an export promotion strategy. The new administration advocated a restructuring of the economy that invited foreign and domestic private investments, removed disincentives to production (tariffs, licenses, subsidies), and rewarded efficiency and competitive export activity. The thrust was to [a] diversify and produce for export markets plus efficient import substituting opportunities, [b] develop the private sector, [c] encourage foreign investment, [d] deregulate the economy, [e] impose responsible public sector management, and [e] rehabilitate basic infrastructure.

In spite limited growth, the agriculture sector's contribution to GDP practically stayed constant at the 8-9 percent range during the 1980-1984 period. Real rural incomes continued to deteriorate, but not at the same pace it did during the 1970-1980 period (3 percent between 1980 and 1984). The agriculture export/import ratio was reduced by 20 percent, but the relationship continued to be negative. There is no data available to measure changes in rural employment from 1980 to 1984.

Yields and production of bananas, coffee and cocoa increased by 13, 66, 35 and 16, 83, 48, respectively. Yields and production of sugar continued to decline by 11 and 8 percent, respectively. Yields for the newly emphasized production of vegetables and melons (non-traditional) for export increased by 4 percent. In general, food crops yield commanded a modest increase while cereal yields declined by 11 percent. It would be appropriate to note that Jamaica experienced a severe drought in 1982, which may have further exacerbated the problem of low yields at all levels.

Vitalization of any agricultural sector is a medium to long-term process. The policy environment that may well influence pecuniary incentives and the transmission of market signals started moving at a slow pace during the 1980-1984 period. A series of structural changes that were supposed to have taken place did not completely occur during the reporting period. Tariffs were eliminated in some instances; a floating FX rate through an open auction process was initiated; and price controls at the market and farmgate levels were being reduced.

III ROLE OF GOVERNMENT IN JAMAICA

Both the Manley and Seaga Administrations advocated different economic development strategies.

Mr. Manley advocated development through an import substitution strategy. Rising government expenditures, rising tax burden and reduced national income starved the private sector of financial resources, thus greatly crippling the capacity of the agricultural sector to grow. Such strategy in tandem with severe FX control policies and regulations imposed by commodity boards, subsidies and price controls on imported food further eroded much of the incentive to produce for export.

Infrastructure development policies in the agricultural sector, particularly that related to water supply, irrigation systems, and agricultural marketing are critical elements and precondition for agricultural growth. Such policies appear to have been neglected since it required substantial investments.

Mr. Seaga launched an economic recovery program predicated on an export promotion strategy. His administration advocated restructuring of the economy that invited foreign and domestic private investments, removed disincentives to production (tariffs, licenses, subsidies), and rewarded efficiency and competitive export activity. The thrust was to [a] diversify and produce for export markets plus efficient import substituting opportunities, [b] develop the private sector, [c] encourage foreign investment, [d] deregulate the economy, [e] impose responsible public sector management, and [e] rehabilitate basic infrastructure. The effects of such a "shift in gears" had not yet been translated itself into an effective vehicle of development at the end of the 1984 period.

The agriculture sector's contribution to GDP stayed fairly constant at the 8-9 percent range during the 1971-1984 period. In spite of that, such growth did not get translated into increased and sustained income for the rural population. In fact, the purchasing power of the rural population was eroded in real terms by 11 percent from 1971 to 1984. This situation may have been exacerbated by the urban to rural migration occurred during the 1980-1984 period. Fifty (50) percent of the total population lived in the rural areas with a per capita rural income of \$140 in 1980 compared to fifty (57) percent with a per capita rural income of \$136 in 1984. The agriculture export/import ratio was reduced by twenty (20) percent, but the relationship continued to be negative.

IV STRATEGY FOR SELF-SUSTAINED DEVELOPMENT

"Development" for purposes of this paper was earlier defined as growth in the agricultural sector characterized by positive changes in [a] agricultural productivity and production, [b] export vis-a-vis import levels, [c] employment and [d] rural income.

Many interrelated forces come into play in the vitalization of the agricultural sector in any given country. No one force can be singled out as the most critical element in the success or failure of any particular agricultural development strategy.

This paper will not address the role of traditional extension systems, food aid, credit, marketing and distribution, communications, and land reform elements that may be inherent to the reordering of any agricultural sector.

This paper outlays a strategy aimed at promoting growth in the agriculture sector by emphasizing production of traditional and non-traditional crops for export markets, plus efficient import substituting opportunities. The goal is to bring increased and sustained income levels for the rural population and thus increase its purchasing power.

The strategy is basically composed of four elements, namely [a] demand/supply-based exchange rates; [b] elimination of price controls, gradual elimination or reduction of import licensing restrictions and inefficient subsidy distortions in producer cost-price relationships; [c] increased investments in agricultural research; and [d] increased investments in basic rural infrastructure.

Implementation of the strategy should bring about [a] technological change as the major source of agricultural productivity increases, [b] increased competitiveness and demand for Jamaica's agricultural exports in world markets, [c] increased demand for food crops; and [d] other employment opportunities in the rural sector as a result of increased demand for agriculture commodities and government investments in agriculture and rural infrastructure.

The strategy advocates a gradual phase-in into an foreign exchange auction mechanism that brings market forces to bear in the determination of exchange rates. A real exchange rate is expected to serve as an important stimulus to production of traditional and non-traditional crops for export. Both the real devaluation and the auction mechanism are important measures in support of efficient use of resources.

Elimination of price controls, gradual reduction of import licensing restrictions and inefficient subsidy distortions in producer cost-price relationships should promote and serve as an incentive to increased food crop production and employment.

Increased investments in agricultural research will bring changes in technology which will in turn serve to solve the problem of agricultural growth by reducing the cost of production per unit of input while increasing volume.

Both private and public sector should play an important role by supporting agriculture and rural infrastructure development. Since agricultural development is diffused over a wide geographic area, rural infrastructure requirements may be substantial, e.g. irrigation, electricity, roads, market centers, etc. Investments in agriculture infrastructure development, especially by the public sector, brings additional employment to the sector and as result increased levels of income to the rural areas. Increased levels of income would be expected to fuel demand for farm produce as well as for rural manufactured goods, thus creating part of the needed stimulus for increased production and more employment.

This strategy fits within the overall efforts of the Government of Jamaica and the A.I.D. Mission to Jamaica to increase production and exports to earn foreign exchange, increase employment and rural incomes, and decrease dependence on imported commodities.

V A.I.D. INTERVENTIONS WITH MOST DEVELOPMENTAL IMPACT

Various interventions in support of the above noted four strategy elements can and are being pursued by the Jamaica A.I.D. Mission through two distinct but mutually supportive instruments, namely, policy dialogue and discrete project design and implementation.

Policy Dialogue

Floating exchange rates, elimination of price controls, gradual reduction of import licensing restrictions and inefficient subsidy distortions are elements of the strategy that lend themselves to be dealt at the policy dialogue level. A.I.D. has an important role to play in encouraging the Government of Jamaica to adopt fully a policy to bring market forces to bear into the exchange rate determination process. This measure in itself should have a positive effect by making Jamaica's produce more competitive in world markets.

This seems to be an appropriate role for A.I.D. to play, since it is the largest bilateral donor in Jamaica, and as such, it is in a better position to influence and selectively support the macro and micro-economic structural reform policies being advocated by the IMF and the IBRD, respectively.

Projects

Agricultural Research: A.I.D. can make a meaningful contribution to the development of the agricultural sector and thus to the whole economy by strengthening Jamaica's Ministry of Agriculture institutional capacity (medium and long term) to generate technologies suited for Jamaica's problems and/or to do field-relevant applied research aimed at increasing levels of production and productivity. Institution building in the area of agriculture research is one where the United States has a comparative advantage and can, therefore, play a key role in assisting Jamaica.

The A.I.D. Mission is currently supporting an agricultural research project aimed at identifying solutions to current constraints to increased production and productivity by carrying out adaptive/applied research in priority commodity areas. The project is providing support to individuals and groups from public or private organizations that have the capability and the motivation to design and implement farmers' problem-oriented research interventions within the priority areas. Assistance for research design and methodology would be available to provide periodic backstopping during implementation. Implementation is being carried out by an financially autonomous research coordination committee which determines priority problems and funding through grants and/or contracts, and by research directed at resolving the problems. The project provides opportunities to enhance the capacity of local researchers, principally through non-degree, short-term, and in-service training.

The project in its current form is not a developmental intervention and its not therefore technically sustainable. It provides a short term, interim solution to a medium to long term problem.

We propose the current project be redirected, so that a medium to long term institutional capacity approach be followed whereby the Ministry of Agriculture's capacity to deal with the problem of out-of-date production technologies and need to generate and/or adapt relevant technologies is developed through short and degree training, and technical assistance, as needed.

This intervention, as recommended, may not be self-sustained in the short term because of the current government budgetary squeeze. However, A.I.D. should be prepared to provide substantial support for recurrent costs and provide for a gradual phase-out while the Government of Jamaica assumes greater financial responsibility for the program. This assumes that the host country government will realize the importance and contribution that technological change can make in increasing crop productivity and production (food and export crops) and its potential positive contribution to economic growth in terms of foreign exchange, employment, income etc. The Ministry of Agriculture already has adequate research infrastructure built with support from the Inter-American Development Bank.

Agricultural Infrastructure: A.I.D. can also make a meaningful contribution to the development of the agricultural sector by providing support to selected interventions in agricultural infrastructure such as rehabilitation of irrigation canals, wells pumping stations, etc.

As Jamaica attempts to diversify its agricultural base to increase its foreign exchange earnings and saving potential it is essential that it produce a high quality product at as low a cost as possible, and to schedule production to meet a highly time-sensitive market demand. Irrigation can help by reducing the problem of uncertain and inadequate rainfall to increase yields.

The A.I.D. Mission to Jamaica is currently funding a crop diversification project, through which it provides support for [a] rehabilitation and construction of installations such as wells, irrigation canals, pumping stations, fencing and storage facilities and [b] rehabilitation and maintenance of one of Jamaica's largest irrigation works formerly designed for plantation type of agriculture.

Assistance in this area would enable Jamaica to produce a greater volume high-quality products for the export market at a lower and more competitive price. Increased demand will hopefully bring more employment and higher levels of income.

VI ROLE OF OTHER DONORS

The International Bank for Reconstruction and Development (IBRD)

One of the largest direct agricultural loans has been from IBRD for [a] rehabilitation of the government held sugar mills and plantations and [b] export crops development.

The Bank was also responsible for the creation of the Agricultural Credit Bank.

The Inter-American Development Bank (IDB)

The IDB has made four large loans directed at [a] drainage of the upper Black River morass, [b] building parish markets, [c] providing small farmer credit for crop production and agro-industrial activities, and [d] upgrading the agricultural research facilities of the Ministry of Agriculture.

European Economic Community (EEC)

The EEC has provided funds to [a] rehabilitate 2000 acres of banana, [b] to construct small dams through the Ministry of Agriculture, and [c] create various veterinary clinics.

Japan

Japan has supported the expansion of the coffee industry.

The Netherlands

The Netherlands has provided assistance for development of a small farmer rice production scheme.

Canada

The Canadians have periodically provided considerable food aid and are currently providing fertilizer as a grant.

IV TABLES

JAMAICA
Selected Development Indicators
Sector: Agriculture

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
GDP Per Capita*	1055	1074	1161	1154	1101	1087	1008	9786	973	948	886	901	893	892	876
%GDP-Agriculture*	7	8	8	7	7	7	8	8	9	8	8	9	8	8	9
% Rural Population*	58	57	56	55	54	54	53	53	52	51	50	51	52	53	57
Rural Income*	-	153	155	133	139	141	142	147	161	145	140	139	123	127	136
% Employment Agriculture*	-	-	-	-	-	-	30	29	29	-	37	-	-	-	-
% Exports Agriculture*	11	11	12	12	18	32	22	26	23	21	21	19	21	27	25
% Imports Agriculture*	10	11	12	14	20	20	23	21	26	22	33	35	32	34	34
Net Ag Export/Imports*	-125	-159	-166	-192	-221	-357	-270	-170	-108	-40	46	-63	-87	-75	-37
Production per unit land**															
	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>1977</u>	<u>1978</u>	<u>1979</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>
<u>Exports</u>															
(MT/HA) Sugarcane	70.72	69.49	70.41	62.89	61.55	57.81	56.04	64.30	82.74	63.08	55.23	58.63	58.52	50.03	49.00
" Banana	6.500	6.233	6.30	5.633	5.280	5.080	4.828	5.520	5.317	6.800	7.00	7.500	8.00	8.00	8.00
" Coffee beans	0.65	0.500	0.48	0.410	0.460	0.450	0.420	0.460	0.334	0.453	0.262	0.274	0.327	0.360	0.36
" Cocoa beans	0.408	0.468	0.50	0.465	0.499	0.494	0.457	0.500	0.492	0.493	0.480	0.506	0.416	0.622	0.60
" Tobacco leaves	1.179	1.134	1.34	1.130	1.284	1.308	1.354	1.118	1.274	1.559	1.340	1.519	1.659	1.701	1.70
" Roots & tubers	9.897	10.347	10.105	9.982	10.545	10.053	10.031	9.899	10.003	10.250	11.891	12.100	11.441	11.408	11.70
" Pulses	0.717	0.684	0.707	0.641	0.722	0.716	0.624	0.730	0.786	0.900	0.936	0.900	0.897	0.901	0.92
" Veggies, melons	8.246	9.111	8.77	8.816	8.984	8.639	9.418	9.417	9.021	9.273	10.957	11.333	11.354	11.015	11.08
% Land, Planted (HA)	12	12	12	12	12	12	13	11	12	11	11	10	10	11	11
<u>Domestic</u>															
(MT/HA) Cereals	1.368	1.283	1.107	1.158	1.553	1.871	1.844	2.157	1.699	1.560	1.785	1.587	1.484	1.510	1.57
" Beans	0.688	0.721	0.733	0.724	0.667	0.624	0.584	0.588	0.661	0.783	0.735	0.785	0.856	0.900	0.87
" Broad beans	0.800	0.734	0.675	0.647	0.641	0.626	0.525	0.616	0.611	0.667	0.680	0.709	0.750	0.758	0.79
" Peas	0.705	0.723	0.702	0.637	0.672	0.672	0.597	0.730	0.785	0.889	0.941	0.918	0.894	0.897	0.90
" Cow peas	1.080	0.886	0.831	0.839	0.880	0.756	0.662	0.862	0.778	0.875	0.808	0.836	0.934	0.952	0.91
" Pigeon peas	0.672	0.598	0.694	0.601	0.753	0.765	0.676	0.698	0.834	0.995	1.066	0.918	0.913	0.917	0.90
% Land Planted (HA)	9	11	12	9	12	14	13	11	16	13	11	12	11	11	11

* IBRD

** FAO

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JAMAICA
Performance of Traditional and Non-Traditional Crops*

Non-Traditional

	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>1977</u>	<u>1978</u>	<u>1979</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>
Vegs & melons (MT)	50723	68431	66793	63341	69015	71360	87750	92435	100553	80264	98638	108266	94900	97455	100419
Vegs & melons (HA)	6151	7511	7619	7185	7682	8260	9317	9816	11146	8656	9002	9553	8358	8847	8795
Roots & Tubers (MT)	142628	199976	214552	193416	209094	213905	194581	211573	265363	224696	218797	230350	188231	19200	192318
Roots & Tubers (HA)	14411	19327	21232	19375	19828	21277	19399	21373	26529	21921	18400	19038	16452	16830	16480
Pulses (MT)	4742	5243	6532	4330	4733	5190	4227	5508	9116	8510	7796	8194	8285	8530	-9033
Pulses (HA)	6610	7666	9236	6760	6560	7251	6780	7541	11601	9460	8328	9105	9241	9465	9595

Traditional

	4M	3M	4M	3M	3M	3M	3M	3M	3M						
Sugar (MT)	58277	59083	58700	58000	62500	61915	64750	50585	44000	47000	51000	43000	44000	53000	53000
Sugar (HA)	195000	187000	189000	169000	132000	127000	140000	160000	160000	170000	140000	150000	160000	160000	162440
Banana (MT)	30000	30000	30000	30000	25000	25000	29000	29000	29000	25000	20000	20000	20000	20000	19239
Banana (HA)	1805	1358	1040	1146	1486	1186	1929	1208	1504	2267	1310	1505	1600	1980	2400
Coffee (MT)	6500	5000	4800	4100	4600	4500	4200	4600	4500	5000	5000	5500	5500	5500	5500
Coffee (HA)	2163	1872	2378	1952	1618	1780	1646	1801	1797	1800	1751	1845	1457	2800	2600
Cocoa (MT)	5300	4000	4750	4200	3600	3600	3600	3600	3650	3650	3650	3650	3500	4500	4000
Cocoa (HA)	1179	1134	1134	1130	1000	1019	1197	778	893	1244	1195	1844	1750	1675	1600
Tobacco (MT)	1000	1000	1000	1000	779	779	884	696	701	798	892	1214	1055	985	930
Tobacco (HA)															

TABLE III

Changes In Food Crop Production and Cereal Yields

CROP	1970 - 1975		1890 - 1985	
	Yield	Prod	Yield	Prod
Cereals	+37%	+78%	-11%	-28%
Beans	- 9%	+42%	+27%	-15%
Broad Beans	-22%	-21%	+18%	+37%
Peas	- 5%	+11%	-.1%	+18%
Cow Peas	-30%	+100%	+21%	-27%
Pigeon Peas	+14%	- 6%	-10%	+32%

Source: FAO Data unloaded by AID/PPC/CDIE on May 28, 1987

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