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CONTRIBUTION OF AGRICULTURE TO GUYANA'S ECONOMY

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INTRODUCTION

This short paper is intended for agriculturalists rather than for economists and therefore avoids any serious attempt to examine economic theories of development and the arguments for and against the importance of agriculture versus industrialization in the development of a country such as Guyana. The position is that we Guyanese, recognize our dependence at this stage of our development, upon agriculture and our other primary resources--minerals and forests--to act as leading strings in the harmony of progress which we are attempting to compose. Out of these primary products we shall create the industries which we know will accelerate our economic growth and development. We can, for example, use the foreign exchange earned from our exports of agricultural products and other raw materials to finance the importation of capital equipment for the manufacturing sector and while we appreciate that the terms of trade are usually unfavourable to primary producing countries, we are in the fortunate position that our primary producing enterprises are now being so structured that the main harmful features of resource aspects of development such as the latifundia, the heavy repatriation of profits and the absence of any significant spill-over effects or linkages, which have inhibited development in

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in many parts of Latin America, are being eliminated here. In Guyana, unlike many other territories in the Caribbean, most of the land still belongs to the State and Guyanese land will be developed by Guyanese for the benefit of Guyanese.

THE POSITION - PAST AND PRESENT

1. THE LAND

Guyana, South America's most recent Republic, has an area of 83,000 square miles and a population of about 750,000, most of whom occupy a strip of coastland, ten to twenty miles deep, between the Pomeroon River in Essequibo and the Corentyne River, Guyana's Eastern boundary with Surinam.

Guyana is therefore, an empty country and even if the unpopulated hinterland contains considerable areas of old mineral-bearing crystalline rocks, non-agricultural silica and very shallow gravelly clays on steep hillsides, there remain hundreds of thousands of acres of unoccupied soils of moderate to excellent fertility throughout the length and breadth of the country.

The extent of agricultural sector in the country is yet to be ascertained correctly. What are generally considered very conservative estimates, place the figure at between 1,000,000 and 1,500,000 acres. Of this it was estimated that less than 500,000 acres were more or less beneficially cropped at the end of 1970. In other words only 0.7 of an acre was occupied by crops for each head of the population.

2. IMPORTS

The country imports relatively large quantities of food estimated at about 30 percent of all foods consumed. Imports of some major food items during 1970 are shown in Table I.

TABLE 1. IMPORTS OF SOME SELECTED AGRICULTURAL COMMODITIES,
1970^{1/}

COMMODITIES	UNIT	QUANTITY	VALUE
Onions	lbs.	4,689,083	\$ 795,478
Carrots	"	184,051	54,742
Peanuts	"	663,570	260,838
Cabbages	"	281,640	60,804
Orange Juice	gals.	60,180	121,312
Tomatoes	lbs.	49,745	18,522
Black pepper	"	63,343	53,851
Ginger	"	16,883	17,136
Tapioca	"	224,512	36,106
Cocoa Powder	"	87,008	102,251
Turmeric	"	76,546	39,062
Tomato Paste	"	448,105	224,584
Castor Oil	"	5,670	5,435
Blackeye Peas	"	90,000	22,725
Split Peas	"	6,113,854	918,196
Other peas and beans	"	1,466,534	354,993
Corn (Maize unmilled)	"	12,074,391	990,721

^{1/} Source: Ministry of Agriculture

It is seen therefore that perhaps the first task of agriculture in Guyana is to feed the Guyanese nation more adequately than it does at present. All of the commodities listed above can be produced locally.

3. LABOUR

The 1965 manpower survey revealed that of the working population of 166,000, 35 percent found employment in agriculture while about 20 percent of the labour force could not find jobs in any sector. The agricultural sector is the one on which the country must depend, for the time being, to absorb the large number of persons who want jobs but can find none.

4. CONTRIBUTION TO THE GROSS DOMESTIC PRODUCT

Agriculture's contribution to the Gross Domestic Product from 1960 to 1969 is shown in Table II and can be compared with the contribution of the other sectors.

It is true that as a country develops agriculture's contribution to the Domestic Product declines relative to the contribution of the industrial sector. But there is invariably an increase, in absolute terms. Income elasticity of demand for food is usually high in developing countries and the agricultural sector must be prepared to cater for its demand as well as for the demand for food of a growing population.

It is obvious from the table II that apart from sugar and livestock, there has been little significant growth since 1960. Production in the other agricultural sections has been erratic.

Discussing the contribution of agriculture to the growth rate in 1969, the "Economic Survey of Guyana" published by the Ministry of

TABLE II. GROSS DOMESTIC PRODUCT 1960-1969^{1/2/}

PRODUCT	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969
Sugar	46.3	50.0	52.2	69.5	44.4	47.8	42.8	52.3	50.5	59.0
Rice	13.9	15.7	15.1	13.1	20.4	20.6	19.5	15.9	17.0	14.0
Livestock	3.4	6.9	9.8	6.9	8.4	8.5	7.5	8.5	9.2	10.0
Other agri- culture	8.8	9.2	9.7	7.3	8.4	9.4	10.0	10.7	11.6	13.0
Fishing	4.2	5.8	6.2	5.8	6.5	7.8	8.8	9.1	8.5	7.0
Total agri- culture	76.6	87.6	93.0	102.6	88.1	94.1	88.6	96.5	96.8	103.0
Forestry	6.6	6.9	6.4	4.3	4.9	5.2	6.8	5.4	6.5	9.0
Mining and Quarrying	29.1	37.3	49.9	35.8	53.5	54.0	58.9	66.5	79.6	90.0
Food & Tobacco	5.7	6.6	7.1	8.3	11.1	12.8	13.5	14.5	15.7	17.0
Other manu- facturing	8.2	8.3	9.5	7.8	8.9	12.1	12.7	14.1	16.3	17.0
Distribution	37.2	39.2	36.6	36.7	39.1	39.4	42.1	44.7	45.2	47.0
Transport & Communica- tions	19.8	21.8	20.1	18.1	19.9	21.3	23.7	24.6	26.6	28.0
Engineering & Construc- tion	25.0	20.8	20.8	13.8	15.1	17.1	21.8	25.3	30.4	34.0
Rent & Dwellings	8.2	8.4	8.5	8.7	8.3	8.5	9.0	9.5	9.8	10.0
Financial Services	8.5	9.1	9.0	8.7	9.0	9.8	11.1	11.6	11.8	12.0
Other services	13.1	13.2	13.7	12.3	12.7	13.9	15.1	15.7	16.1	16.0
Government	25.6	30.5	30.5	28.1	32.8	40.2	43.7	50.1	51.9	57.0
G.D.P. at Factor Cost	263.5	289.8	307.2	275.4	392.9	328.3	347.0	378.5	406.7	440.0
Agriculture as a % of G.D.P.	29.1	30.2	30.3	37.3	29.1	28.7	25.5	25.5	23.8	23.4

^{1/} The 1967 figures are revised; 1962 and 1969 estimates are first approximations.

^{2/} Source: Bank of Guyana Economic Bulletin - No. 4 - 1970.

Economic Development stated: "The contribution of the Agricultural Sector to Gross Domestic Product increased in 1969. The indications are that the sector expanded by at least 11 percent since 1968, though there was evidence of relative stagnation in the sector if sugarcane is excluded. Sugarcane experienced a good year--congenial weather conditions, and a year free of any major industrial relations conflict. There was therefore a substantial increase in sugarcane harvested. Rice, however, had another disappointing year, with low output. Live-stock rearing, particularly poultry was still expanding in response to a steadily increasing local demand. As the component parts of the sector made only small gains growth in Agriculture was disappointing compared with other productive sectors".

5. ECONOMIC CHARACTERISTICS:

The main economic characteristics of agriculture in Guyana are:

- (i) Agriculture is dominated by two crops - sugar and rice which together occupy about 86.2 percent of the crop-land and comprise the only significant agricultural exports.
- (ii) Per acre productivity is low. In the case of sugar the per acre productivity has been considerably greater than that of rice.

The position in 1969 is shown in Table III.

TABLE III. COMPARATIVE PRODUCTIVITY OF LAND UNDER SUGAR AND RICE - 1969

	% of Crop-land	Average Yield per Acre	Estimated Value
Sugar	23.7	29.0 tons canes	\$ 290.00 ^{1/}
Rice	62.5	0.6 tons paddy	60.00 ^{2/}

^{1/} Yield and value calculated for small farmers only.

^{2/} Based on the price of Grade C paddy.

Source: Ministry of Agriculture

(iii) Per capita productivity is also low.

In 1965 the persons employed in the agricultural sector contributed G \$94.1 m to the gross domestic product with a per capita contribution of G \$1,600: compared with about \$2,000.00 per capita for the total working population.

It is not surprising that per capita contribution should be lower in the case of agriculture than in the case of the other sectors since industry is normally assisted by a considerable amount of capital but what is important to note is that the Guyanese economy at present hinges firmly on primary products derived mainly from agriculture, mining and forestry. Of these, agriculture is the dominant sector and weakness in agriculture will depress the per capita, income of the population as a whole.

(iv) Processing of agricultural crops is limited almost exclusively to the milling of sugarcane and of paddy and of copra. Only a little bit is done in other fields, e.g., fruit canning, the making of jams and jellies and of livestock feeds and corn meal.

The characteristics of the agricultural sector have resulted from historical rather than ecological factors. The country has been a former colony of the British Empire and the dominant agricultural crop, sugarcane, has been mainly in the hands of the expatriate plantation owners interested in little else than the profitable exploitation of their sugar estates and in fact so jealous of their monopsonistic position in the labour market that they actively stifled efforts at development in other directions.

The agricultural workers imported to the country as slaves from Africa or indentured servants from Madeira or Asia brought with them their traditional crops and the low standards of technology associated with the level of development of their native countries.

There has been a good deal done to improve standards but, for one thing, most of the efforts expended so far have been spent on sugar and rice rather than other crops to which both soil and climate are suitable and, for another thing, the thrust has been half-hearted rather than full-blooded. More attention has been paid to some links in the chain, to research, transportation and water control for example, than to other links such as agricultural credit, the organization of a top notch extension service and to marketing. The result has been that the programme of diversification has only just started to roll. For the first time a bold step has been taken to break away from the clutches of the two-crop economy and for the first time too a comprehensive beef cattle development programme, backed by careful planning and a reasonable amount of credit, has been launched.

Much more remains to be done. The extension arm of the Ministry of Agriculture needs to be strengthened and recruited by a band of well prepared and dedicated officers but this improvement will only take place if young officers join the service and look forward to salaries and conditions of work comparable to those enjoyed by their counterparts serving in other Government departments. Credit must be available to provide the means whereby farmers can benefit from the improved technology translated to them from research by the extension service. Marketing activities need to be extended, possibly along cooperative lines, but in any case much more research in handling, transporting and holding of locally produced foods,

in tastes and attitudes of local consumers, in the processing of local farm products especially fruits and vegetables, and in the requirements of markets in the Caribbean and beyond has to be carried on.

THE FUTURE

We do not seek a *primum mobile*, other than hard work, for our economic growth. Nor do we have to join the controversy between the protagonists of the theory of balanced growth on the one hand and those of the school of unbalanced growth on the other. We are aware as Hirschman (1) puts it that "development depends not so much on finding optimal combinations for given resources and factors of production as on calling forth and enlisting for development purposes, resources and abilities that are hidden, scattered and badly utilized".

We can take it from here. There is no lack in Guyana of the land to grow the crops and the men to work the land. If the institutional factors, some of which have been mentioned above, are overcome, there seems to be no reason why agriculture cannot fulfill its rightful role as the pivot around which our development will turn. If we do not yet possess the technology, we can import it. In fact our technologists may need little more than greater exposure to the practical problems of applying the new techniques they have already acquired from their training in institutions at home or abroad. We have been learning too, no doubt stimulated by our recently won independence, to rely more and more on our own resources and this new self-reliance and self-confidence is being reflected in our plans to increase our production of corn and sorghum, of soyabeans and peanuts, of pineapples and cashew nuts.

Writing about the functions of agriculture in development, Kindleberger (3) notes that "agriculture can play a variety of roles in economic development, and not just sit back while the development process spurs industry. In the first place, it can provide workers to industry. Second, it can furnish demand for industrial output. Third, it can provide savings for use in industry or by Government in forming social overhead capital. Fourth, it may pay taxes to government, rather than lend to it. Fifth, agriculture can earn foreign exchange through exports to pay for imported capital equipment and raw materials needed in other sectors. Sixth, it can supply food for consumption by workers in industry or in capital formation. The more efficient agriculture is, the better it can perform these various functions".

It is true that some of these functions are competitive rather than complementary but what is relevant here is the accent placed upon the need for increasing the efficiency of agricultural production. D. Gale Johnson (2) has observed that while agriculture has made highly significant contributions to the growth of the economy of developing countries, the contributions depend upon a more or less continuous increase in productivity per worker without which output in the non-agricultural sectors cannot be expanded.

And so we come back to where I started. The contribution of agriculture to the future development of Guyana will depend upon agriculturists rather than upon economists. Agriculture's contribution via creating more jobs for our unemployed, feeding our own people better, reducing our imports of food thereby assisting our balance of payments position, earning more foreign exchange through increased exports, and producing raw materials for manufacture, will depend in the final analysis upon increasing the productivity of agriculture through increased efficiency. In other words our concern at this stage of our development is to get agriculture moving.

I think that I can close in no better way than to quote Mosher (4):

"We have seen that when we talk about a progressive agriculture we are not talking just about cultivating land and tending livestock. Instead, we are forced to speak of roads and price relationships and research organizations and trade and governmental policies. We must think of industrialization and the form it takes, education and its content, banking, laws and administrative efficiency in governmental departments."... to achieve agricultural development thousands of people must concentrate on managing farm businesses, cultivating crops and tending livestock. Other thousands must operate marketing facilities that bring farm supplies and equipment to farms and more farm products from farms, protect them, transport them, and make them available where consumers can use them. Hundreds of people must concentrate on continuously finding more and more productive methods of farming either by importation or by development through research. Thousands must be employed in manufacturing farm supplies and equipment, in education for development, and in providing production credit".

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