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SOME THOUGHTS ON AGRICULTURAL RESEARCH IN THE COMMONWEALTH CARIBBEAN

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Thank you for the most enjoyable meal. When one's stomach is so full it is difficult to sustain serious discussion for any length of time; therefore I will be brief.

The theme of your Conference *Maximising Regional Self-Sufficiency in Food in the Commonwealth Caribbean* is a most appropriate topic for discussion in the 1970's. We are all very conscious of the *World Food Crisis*, and I am sure we are all convinced that the solution to the problem in our part of the world lies in our own hands, literally speaking. A recent article in *Time* magazine suggested that "the industrial world's way of eating is an extremely inefficient use of resources. For every pound of beef consumed, a steer has gobbled up 20 pounds of grain. Harvard Nutritionist, Jean Mayer notes that 'the same amount of food that is feeding 210 million Americans would feed 1.5 billion Chinese on an average Chinese diet'". The report continues, "if the world's food supply were evenly divided among the planet's inhabitants, hunger might be curbed for several decades. But it is not likely that the wealthy nations will reduce their living standards to help the LDC's". From past experience we know this to be true; therefore we must put our own farms and kitchen gardens in order.

I observe that your programme includes a wide variety of topics. You have a few general discussions and a few country studies, and you are also looking at the production and marketing of particular crops. You are also concerned with strategies for the future. Tonight, I ask you to look back a little bit so that we can better appreciate the problems of the present and the future, and their solutions.

We are all familiar with the sociological and psychological context in which we pursue our agriculture. Colonial economies emphasised production of crops for export rather than foodstuffs for domestic consumption. Colonies were expected to import their food requirements. Their constitutions were designed so that they could be manipulated easily by the planters and London-based capital to secure a cheap supply of labour and safe-guard and promote foreign investments. And colonial economies such as those in the Caribbean were based on slavery and indentured labour. The inhuman conditions of life of those workers have left us with a strong dislike for agriculture and manual work as a whole. This is a hang-over for which there can be no outside assistance or solution. We have to sort it out by ourselves.

Next, I ask you to bear in mind the institutional background to our agriculture. First, much of our best agricultural lands is owned and controlled by foreigners, in large plantations. Next, continuing preoccupation with sugar and sugar preferences has prevented our policy-makers from devoting sufficient attention to the production of other crops. Hence, in the post-independence period we continue to

emphasize exports and neglect the domestic market. Finally, the Commonwealth Caribbean is be-devilled by a highly inequitable distribution of farm lands. May I remind you of some of the statistics: In 1963 in Trinidad and Tobago 46 per cent of the farms accounted for only 7 per cent of the total acreage; in Jamaica in 1968 77 per cent of the farms accounted for only 15 per cent of the total acreage; in Guyana in 1970 75 per cent of the farms represented only 8 per cent of the total acreage; and in Barbados in 1971 78 per cent of the farms represented only 12 per cent of the total acreage. At the same times, at the other end of the scale, farms of 100 or more acres amounted to less than 2 per cent of all farms but 47 per cent of the acreage in Trinidad and Tobago; less than one per cent of the farms but 55 per cent of the acreage in Jamaica; one per cent of the farms and 55 per cent of the acreage in Guyana; and in Barbados less than one per cent of the farms held 83 per cent of the total acreage. It is also important to note that 72 per cent of the farms in Trinidad and Tobago were below the national average size while in Jamaica, Guyana and Barbados the proportions were 79, 83 and 86 per cent, respectively.

The policy implications of the existing institutional arrangements are clear. One of the primary requirements of transformation in agriculture is land reform. There must be a change in the ownership and control of plantation lands, and a redistribution of lands to small farmers and holders of fragmented lands, landless agricultural workers and cooperatives. The concomitant requirements in terms of the minimum size of plots and assistance, facilities and amenities have been fully discussed at previous meetings of this Society, and need not be repeated here. But we must emphasise that land reform must be undertaken in the context of an agricultural programme which is fully integrated into the overall plan for the whole economy. As we all know, because of the strategic role of land in the institutional complex of the Commonwealth Caribbean, land reform is necessary not only for purely economic reasons but as a pre-requisite to social and political freedom as well.

We are often reminded of the low level of *productivity* in agriculture. A manuscript which I have just completed shows a very depressing situation. Thus in 1960 average output per man in agriculture was only 31 per cent of the national average in Jamaica and 55 per cent in Trinidad and Tobago, and in 1956 it was only 60 per cent in Guyana. In Barbados the average in agriculture (including sugar manufacturing) was 103 per cent. Thereafter the average fell in three of the four territories - to 26 per cent in Jamaica in 1969, 37 per cent in Trinidad and Tobago in 1967, and 82 per cent in Barbados in 1970. In Guyana it rose to 78 per cent in 1965. Over the periods listed, national average output per man in Jamaica, increased by 72 per cent while average agricultural output per man increased by only 47 per cent. In Trinidad and Tobago the national average increased by 24 per cent while the average in agriculture actually fell by 16 per cent; in Barbados the national average rose by 142 per cent and the agricultural average by 94 per cent. Only Guyana showed the opposite trend - the national average rose by 54 per cent but the agricultural average rose by 103 per cent. These figures show that agriculture was a very depressed sector, and worse, the depression was deepening. It must also be noted that average output in sugar cane was higher than the average for the sector so that average output in other agriculture was even lower than these figures indicate. Of

course we know that farmers and agricultural workers supplement their income from other employment, but they also have larger families than non-agricultural workers, so that, on balance, the relative position of farmers and agricultural workers may be even worse than shown here.

The low level of productivity in agriculture is the result of many factors. We have already implied that plots are too small to be economic thus enforcing many farmers to engage in non-farm activities, and referred to the historical stigma attached to agriculture. In addition, many of the crops are planted on lands for which they are not suitable, the level of management and husbandry is low, and apart from sugar and rice the crops are interplanted with others.

At this point it would be useful to take a brief look at public policy regarding agriculture. The data on government capital expenditure show that while substantial amounts have been spent on agriculture under the various development plans, the proportion shows a declining trend in three of the four territories. Thus in Jamaica the proportion declined from 20 per cent between 1957-63 to 12 per cent between 1968-71; in Trinidad and Tobago from 15 per cent between 1958-63 to 12 per cent between 1969-72; and in Guyana from 36 per cent between 1955-64 to 21 per cent between 1965-71. Only in Barbados did the proportion increase; however, it moved from only 5 per cent between 1952-60 to a mere 10 per cent between 1964-72.

Another facet of this policy is the governments' emphasis on manufacturing. We would all recall that for most of the post-war period Commonwealth Caribbean governments have been strongly influenced by the argument that the manufacturing sector held the key to economic development. Consequently, they made considerable efforts to increase the size of the sector. They provided various forms of tax holidays and duty free concessions. In addition to Ministries of Industry they established Industrial Development Corporations to provide technical and financial assistance, industrial estates with subsidised facilities; and Development Finance Corporations and Small Industries Boards to assist manufacturing mainly. No such comparable institutions were set up to assist and promote agriculture - a deficiency for which we, Caribbean economists, are largely to blame. In fact, it is only recently that policy-makers have become conscious of the need to set up specialised institutions to promote agriculture directly. Of course the Agriculture Marketing Boards for long subsidised a variety of crops but it could be argued that their pricing policies have not been imaginative enough.

The data on the effects of public policy on agricultural self-sufficiency are very scanty, except for Jamaica. In that country imports provided 16 per cent of the value of food consumed in 1950 and 24 per cent in 1971. Consumption of bread and cereals increased by 313 per cent while imports increased by only 198 per cent. Consumption of meat and dairy products showed the highest rates of increase - 625 and 692 per cent, respectively, while imports increased by almost twice as much. At the same time imports of meat amounted to 21 per cent of the total value of food imports in 1971, and dairy products 16 per cent. Consumption and imports of fish increased at about the same rate. The largest difference between consumption and imports is shown for fruits, vegetables and pulses - consumption

increased by only 151 per cent, the lowest rate for all categories, while imports increased by over ten times. Consumption of other foods - oils and fats, sugar, preserves, confectionery, beverages, soft drinks and other foods, increased by 267 per cent while imports rose by 314 per cent. Thus, apart from bread and cereals, Jamaica became less self-sufficient in every food item during the period 1950-71.

Data in a comparable form are not available for the other territories. However, it is widely believed that Trinidad and Tobago has become more dependent on food imports, while in the case of Barbados, because of the severe constraint of land space and soil formation, improvements towards self-sufficiency cannot be as significant as in the other territories. For Guyana, data on the production and imports of some commodities show that between 1961-71 the country became more self-sufficient in meat and meat preparations, and fish and citrus, although per capita consumption was extremely low. Production of milk increased only marginally and the country's dependence on imported milk increased significantly. Production of ground provisions (mainly root crops) declined by over 40 per cent.

These findings show that the economies have generally become more, not less, dependent on imported foods. In essence they indicate that the Region's efforts at achieving self-sufficiency in food have failed.

We have taken a quick look at the social background and institutional *milieu* of the agricultural sector. We have seen that the level of productivity in agriculture is extremely low and we briefly listed the main factors responsible for this poor performance. We look at the role of public policy and some of the effects of that policy. It remains for me to say a few words on the role of this Society in the agriculture development of the Region.

In his Opening Remarks the Honourable Minister of State for Agriculture asked you to consider a number of activities which would increase your usefulness to Caribbean Agriculture. Among others he recommended the publication of a journal - a very laudable objective - and pledged a contribution of up to \$5,000 to promote the project. The Government of Guyana must be warmly congratulated for this generous contribution. At the same time the Honourable Minister also drew your attention to the relative lack of dependable data on the agricultural sector. Some of you will argue that the collection of data is an expensive business and that governments are best placed to perform this task. I agree up to a point. So what are we to do? As I see it we can do one of two things. We can continue to use the bits and pieces of data which become available, do our independent *ad hoc* research; meet once a year to concentrate on particular problems; or we can decide to undertake a very comprehensive study of the agricultural sector in the Commonwealth Caribbean. In this connection I would like us to remind ourselves of a few important facts. The first is the proportion of the labour force in Agriculture. It is true that there has been a rapid decline in the proportion in the post-war period. Nevertheless, in 1972, 29 per cent of the labour force in Jamaica was engaged in agriculture; in 1971 it was 22 per cent in Trinidad and Tobago and 17 per cent in Barbados; while in

Guyana, 32 per cent was in agriculture in 1965. At the same time in 1971 agriculture contributed 9 per cent of the gross domestic product in Jamaica, 20 per cent in Guyana and 12 per cent in Barbados; and 8 per cent in Trinidad and Tobago in 1968. The sheer size of the sector - not to mention its increasing importance in the 70's - suggests that it is absolutely necessary that a very comprehensive study of it must be undertaken as quickly as possible.

Here I would like to draw your attention to two research programmes in the Commonwealth Caribbean. The first is one of which many of you have knowledge - it is the *Regional Monetary Studies Programme* conducted by the University of the West Indies and Guyana and other experts from the region. This programme has been in existence for over seven years and is shortly to be renewed for another period. Since its inception it has involved the expenditure of several hundreds of thousands of dollars, financed by Regional Institutions. The second research programme is the project on *The Role of Science and Technology in the Economic Development and Regional Integration of the Caribbean* which would be launched later this year. This programme would be supervised and directed by the recently established Institute of Development Studies of the University of Guyana. It would extend over a period of two years, and undertaken by economists, sociologists, engineers and natural scientists from the Institute of Development Studies, ISER, the three campuses of the University of the West Indies, the University of Guyana, and experts drawn from outside these Institutions. The programme would involve a series of very comprehensive studies and five sectoral studies including agro-based industries. The cost is in excess of G\$500,000 and would be borne mainly by the International Development and Research Centre (I.D.R.C.) in Canada.

Next year the West Indies Agricultural Economics Conference enters its second decade. I am sure we would all agree that it is sufficiently mature to assemble a high-powered team of Caribbean economists, sociologists, agricultural scientists and experts in related fields to plan and execute a sustained, intensive, and comprehensive programme of research into agriculture in the Commonwealth Caribbean along the lines initiated by the two programmes I mentioned just now. I am certain that this Society could secure the finance for a well-conceived project. We are all aware of the strategic role of agriculture in the Region; we are all familiar with the problems; we all recognise that solutions must be found quickly. Let us draw up a bold and imaginative programme to help develop the tools so that our policy-makers and farmers can do the job.

Thank you.

Reference

- Jainarain, I. *International Trade and the Economic Development of Small Countries with special reference to the Commonwealth Caribbean.* (Jamaica; I.S.E.R., forth-coming.)