

PERSPECTIVES ON ENHANCING SUSTAINABLE GROWTH AND DEVELOPMENT OF CARIBBEAN AGRICULTURE

Keynote Address

by

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I. PREAMBLE

I am honoured by the invitation of the Caribbean Food Crops Society to speak at its Forty Fourth Annual Meeting. Your longevity is indicative of an accumulation of knowledge and service to the agricultural sector of the Caribbean which I, a mere Economist and occasional dabbler in the special field of agricultural economics cannot match. Therefore I thank you in advance for your kindness and tolerance.

II. INTRODUCTION

There is widespread perception of a food crisis in the Caribbean. The particular manifestations of the crisis are sharply raising retail prices of food staples (most of which are imported) and reduced availability of some of them. The Caribbean situation is part of a global problem emanating from the re-allocation of major grains and oilseeds from food production to the production of bio-fuels, adverse weather conditions in major producing countries, demand expansion by rapidly growing emergent economies, and higher energy and fertilizer prices. According to recent reports, bio-fuels seem to account for 75% of global food price inflation between 2002 and February 2008 and energy and fertilizer prices for 15%.

There are concerns about the food and nutrition status of Caribbean Community residents, especially vulnerable groups of poor families who comprise approximately 20% of the total population. Expenditures on food accounts for 20% of total household expenditures and for as much as 35% - 40% among poor households.

Because of the political sensitivity of food supply and accessibility, the policy response has been swift. Three kinds of actions have been taken primarily: fiscal operations to reduce or restrain increases in consumer prices; switching to less expensive foreign suppliers; moral suasion on the food distribution sector to not fully pass on cost increases to final consumers.

The food crisis also seems to have given impetus to initiatives at national agricultural development within a regional framework. The Jagdeo Initiative adopted by Caribbean Community governments addresses the revitalisation of agriculture. As the word “revitalisation” suggests, the Jagdeo Initiative came out of recognition of agricultural stagnation or retardation, the danger of loss of European Trade preferences for bananas, rice and sugar, and a heightened sense of food insecurity.

Given this context of renewed interest in the agricultural sector, it seems reasonable to examine its recent performance, identify the principal problems and explore possible solutions or remedial actions. Before doing so, however, it may be useful to summarily indicate the role of agriculture in Caribbean economies.

III. AGRICULTURE IN THE ECONOMY

Agriculture is an important sector in most Caricom countries despite the economic diversification which has taken place over the last four decades, particularly with the growth of service industries, notably tourism and financial services.

Agriculture sector gross domestic product (GDP) in 2005 approximated 35% of total GDP in Guyana, 18% in Dominica, 15% in Belize and 8% in Grenada and St. Vincent and the Grenadines. Its GDP share varied between 3% and 6% in Antigua and Barbuda, Barbados, St. Kitts and Nevis, and St. Lucia. Thus, although agriculture cannot be regarded as a predominant sector on the basis of its GDP contribution, it is not without significance.

The sector's economic contribution to GDP is enhanced when the GDP of agro-industries is included. In the case of Trinidad and Tobago for which social accounting matrices were computed for 2000 by Harry and Segura, the percentage GDP share of primary agriculture plus agro-food industries was 8.65% compared with only 1.7% for primary agriculture alone. The macro-economic importance of

agriculture is further enhanced when one takes account of its role in providing intermediate inputs to other sectors (67% in Trinidad and Tobago), its share of final consumption (42%) and its demand for intermediate inputs (47% of the output of other sectors). The sector is also a significant absorber of the total employed labour force in the Caribbean, i.e., 3.3 million agricultural workers or 32% for 15 countries including Haiti, or 1.1 million agricultural workers or 17% of the employed labour force if Haiti is excluded.

Traditionally, agricultural commodities such as bananas, sugar, rice, cigars and citrus have been among the main exports. Agricultural exports exceeded 60% of total merchandise exports in the 2001-2003 period in Belize, the Dominican Republic, St. Lucia and St. Vincent and the Grenadines. The agricultural export proportion was between 20% and 40% in Barbados, Dominica, Grenada and Jamaica. Only in Antigua and Barbuda and in the Bahamas were agricultural exports less than 5% of total merchandise exports.

IV. WHAT IS WRONG WITH CARIBBEAN AGRICULTURE?

It is often asserted that Caribbean agriculture is on the decline. The evidence often adduced in support of this contention is the quite evident decrease in the sector's share of total gross domestic product. Between 1990 and 2005 all Caribbean countries experienced substantial decreases in agriculture's share of GDP. However, since sectoral shifts are a concomitant of economic growth, decreases in agriculture's share are not conclusive evidence that the sector is doing less well in absolute as distinct from relative terms. Indeed, in absolute terms, measured for instance by its current price GDP, agriculture's performance in the region may be viewed less unfavourably. In nine of the thirteen countries, agricultural GDP increased between 1990 and 2005; in one country it was approximately stationary; and in three countries, it declined.

It is revealing to go behind the national income accounting aggregates such as GDP and examine performance at the commodity level between 1997 and 2006. Banana output decreased in the banana-producing countries, most severely in St. Lucia. The only other agricultural commodity groups with a distinct trend towards decreasing or stationary output were eggs and milk. Only in St. Lucia did production of milk increase between 1997 and 2006. Sugar production decreased in most countries (Barbados, Grenada, Jamaica, St. Kitts and Nevis, and Trinidad and Tobago) but increased in Belize and Guyana. Production of meat rose more often than it decreased (six versus two countries). Fruit production increased in as many cases as it decreased and production of vegetables rose in more countries than it decreased or remained stationary. Viewed through the commodity production lens, the performance of the agriculture sector can be described as weak.

As a result of the domestic food production sector's inability to sustain increases in output or even in many countries to increase output at all, trends towards higher levels of consumption have combined to perpetuate the food insecurity of Caribbean countries. The gap between domestic consumption and domestic production has not closed. Correspondingly, dependence on imported food commodities is a central part of Caribbean economic reality.

An amalgam of supply-side and demand-side factors seem to contribute to the overall weakness of agriculture in the Caribbean. They include:

- (i) low productivity;
- (ii) vulnerability to natural hazards such as floods and hurricanes;
- (iii) lack of price competitiveness in export markets and domestic markets;
- (iv) divergence between the commodity composition of domestic food supply and the commodity composition of consumer demand;
- (v) discordance between the quality and convenience characteristics of domestic commodity supply and quality and convenience requirements of consumers;
- (vi) inadequate renewal of capital and labour in agricultural enterprises;
- (vii) alienation of agricultural land;
- (viii) praedial larceny; and
- (ix) poor physical infrastructure.

This list of nine groups of problems confronting agriculture is by no means exhaustive. However, addressing even these few problems can help to enhance sustainable growth and development of Caribbean agriculture.

By international comparisons, productivity in the banana and sugar industries is low contributing to price uncompetitiveness. The loss of European trade preferences in the case of bananas and the impending loss of preferences for sugar have consequently caused a reduction of production for both commodities except in Guyana. Productivity is also low for domestic food crops. For domestic food crops and for bananas, the small scale operations is a constraint on productivity. The Caribbean main export competitors in the banana industry are Latin American producers who derive significant cost economies from their much larger scale of operations in addition to the advantages of a relatively low

wage labour force. In the domestic food crops industry, the main competitor is the United States of America which derives decisive cost economies from its much larger scale of operations and its use of improved production technologies. But there is also competition from producers in Europe and Latin America in particular commodity groups.

Agriculture faces several problems of input supply and capital stock. Improved chemical inputs – fertilizers, pesticides, weedicides and medicines – are imported and subject to externally driven movements in prices. The agriculture labour force is an aged one with diminishing entrants of young workers and entrepreneurs who can bring new energy and ideas to the sector and sustain or increase pre-existing levels of labour utilisation. Much land has been reallocated from agriculture to other sectors, principally residential construction or tourism. This trend reflects relative rates of private returns to investment in agriculture, residential real estate development and other land-based production activities. In addition to the loss of land there seems to be a problem of inadequate capital stock evidenced in vintage stocks of farm equipment and farm buildings in need of maintenance or replacement. In effect, there is a production capacity problem in Caribbean agriculture.

Agricultural producers of domestic food crops and livestock are often victims of praedial larceny which reduces farm incomes and exerts powerful disincentive effects on future production. Farm incomes and supply reliability can also be adversely affected by natural hazards such as floods, tropical storms and droughts. As is well known, the Caribbean is very vulnerable to tropical storms and hurricanes and to floods which are often a consequence of them. Climate Change has intensified the strength of tropical storms and increasing their frequency as well as increased the intensity of rainfall and causing extensive floods in those countries such as Guyana and Trinidad and Tobago not usually exposed to tropical storms.

The last supply-side factor affecting agricultural performance to which I draw attention lies outside the sector *per se*. It is the physical economic infrastructure especially transportation and water supply and control. Intra regional trade in agricultural commodities is not well-served by the facilities for air and maritime freight. Air services are expensive. Shipping services are not sufficiently regular and predictable and usually lack refrigerated storage capacity. Sea ports are under-staffed especially with technical personnel for sanitary and phyto-sanitary inspections. In several countries, production capacity for water used for household and commercial purposes is inadequate leading to supply disruptions, typically unscheduled which then makes production management difficult. In some countries where inland waterways are important for drainage control and minimisation of flooding, failure to maintain and expand capacity has added to the water control difficulties of farm enterprises.

On the matter of divergence between the commodity composition of domestic food supply and domestic consumer demand, the problem inheres partly in the static nature of the commodity composition of domestic food supply particularly because of supply rigidities in the production of starchy staples e.g. root crops and nutritionally unimproved varieties of rice, and capacity shortages in the production of fruits and vegetables.

On the consumer demand side, the considerable rise in household incomes as the economies transited from low income to upper middle income developing country status has generated changes in consumer preferences towards commodities not readily produced or produced as economically locally. This shift in consumer demand patterns has been reinforced by the consumption preferences of the quite sizeable numbers of tourism visitors to the Caribbean. Furthermore, with higher levels of income and wealth of Caribbean residents and with the presence of international visitors on a sustained substantial scale has come significant changes in quality and convenience characteristics demanded by final and intermediate purchasers: requirements such as better grades of products, longer shelf lives, availability in accessible supermarkets rather than in municipal markets or street markets, modern packaging and labelling, provision of dietary and health information for the benefit of the prospective purchaser, and dependability of supply which is especially important to intermediate purchasers in the hotel and restaurant industries. The domestic food producers and suppliers have not responded effectively to these changes in preferences. The gaps that have consequently emerged between domestic production and supply of agricultural and agro-based goods and domestic and tourism demand for such goods points to farm level issues as well as to weaknesses elsewhere in the food supply chain.

V. HOW TO ENHANCE SUSTAINABLE GROWTH AND DEVELOPMENT OF CARIBBEAN AGRICULTURE

A multi-faceted approach has to be taken for enhancing sustainable growth and development of Caribbean agriculture.

Let us start with the supply side. In many instances there would need to be an expansion of land capacity and the stock of physical capital. Depending on the extent to which the technology embodied in the capital investment is labour-saving, there need not be a commensurate requirement for additional labour. Technology innovations are necessary for substantial productivity growth without which Caribbean agriculture is unlikely to be price competitive. Technology innovations have to be fostered by an institutional system which generates and transfers knowledge through funded primary and secondary

research, experimentation, and extension services to agricultural enterprises. Innovative methods of cultivating crops and raising livestock could also be used to economise on land use and minimise the competition for land in small countries, as has been done for example in small farm fruit and vegetable production in China, Israel, and Japan. These countries use vertical cultivation methods, including drip feeding of nutrients, rather than horizontal cultivation methods.

The price competitiveness problem cannot be dealt with solely through technology. Diseconomies of small scale operations in a regional agriculture characterised by miniscule and very small farm units would continue to be a serious obstacle to growth and development. Productivity gains also have to be sought through the creation of large production units. This would entail public policies for distribution of state-owned lands and ensuring the effective functioning and accessibility of institutions governing property-rights and commercial transactions in order to facilitate amalgamation and consolidation of private landholdings.

There could be a further gain from creation of commercial-sized farm units. Generally, the small production units typical of Caribbean food crop production set a low ceiling on potential farm incomes absolutely and relative to incomes which could be earned by professionals and entrepreneurs in other sectors. The income gap partly explains the failure of the agricultural sector to retain or attract those categories of persons. The creation of larger units would raise the potential income ceiling thereby sending positive signals to persons contemplating a future in agriculture.

Agricultural enterprises are unlikely to make the requisite investments in capacity expansion and productivity improvements without a reasonable structure of incentives and reasonable prospects for risk management. Public policy is critical for both aspects. It is public policy reflected in improvements in national water supply and drainage systems which would give agricultural enterprises the confidence and encouragement to invest in irrigation as a means of reducing dependence on rainfall and in on-farm drainage linked into a national network. It is public policy reflected in well-functioning national research and development and extension services which would provide some quality assurances about new technologies and methods and which would provide requisite technical assistance. It is public policy manifested in the national framework for disaster risk reduction and management and in institutional arrangements for risk insurance at the enterprise level which would convey the likelihood of reduced risks of loss of agricultural income through natural hazard events. It is public policy reflected in effective enforcement of laws against praedial larceny that would minimise the risk of substantial income loss through theft of produce and livestock. It is public policy aimed at improving transportation

infrastructure and port facilities that would make it easier for agricultural enterprises or middlemen to conduct sales transactions across national borders within the Caribbean.

On the demand side, consumer preferences for a different basket of agricultural products are partly susceptible to modification over medium term by education campaigns which stress the nutritional equivalences of locally produced substitutes and by improvements in the wholesale and retail segments of the food supply chain especially in response to product quality characteristics described previously. Particular attention should be paid to encouraging the establishment of wholesalers and commodity purchasing enterprises through credit and fiscal concessions because their absence in the food supply chain puts the responsibility for produce sorting, grading, packaging, labelling, and bulking on farm enterprises which usually cannot bear the associated costs and are not equipped to perform those functions adequately. At the same time, failure to have those functions performed causes final purchasers to withhold demand for domestic products and instead purchase imported goods for which the services have already been performed. The void created by the absence of wholesalers and commodity purchasing enterprises could therefore seriously weaken the market position of domestic agricultural producers. However, there also needs to be production adjustment, by agricultural enterprises to supply the locally produced nutritional equivalent commodities in larger quantities and greater regularity. The ability to adjust the commodity composition of agricultural output turns upon resource flexibility versus rigidity, technical change and technical assistance where there is to be commodity innovation, and the risk propensities of farmers.

VI. FINAL REMARKS

Agriculture is too important to the economic well-being of Caribbean countries to be allowed to slip into continuous retardation. Nor is it necessary to envisage or fear long-lived regimes of agricultural income support. There is sufficient market demand for the output of the sector to make it potentially profitable. What is required are public policies which address structural constraints on agricultural performance and on the marketing and distribution of agricultural output in the Caribbean. I hope that I have succeeded in providing some broad perspectives on the warranted direction of public policy for enhancing growth and development of Caribbean agriculture.