ASSESSMENT OF MAJOR FACTORS WHICH CONSTRAIN AGRO-INDUSTRIAL DEVELOPMENT IN THE CARIBBEAN

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INTRODUCTION

When a country attains its political independence, the aspirations of its people with regard to their social and economic well-being rise to new levels. Among these aspirations are better educational opportunities, improved health care, and the availability of more and better quality food.

Food is one of man's three fundamental needs, and every nation should strive for self-sufficiency in its basic food requirements. One of the basic objectives of national planning, therefore is to ensure that there is an adequate food supply for the country's population, and, in a region where agriculture is an important sector of all the economies, the question of the rationalisation of agricultural production as it impacts on regional development must be addressed.

In spite of this realisation and an ever-increasing demand for food, agricultural production in the Caribbean Region has not kept pace with the overall population growth and the higher demands due to rising incomes, nutritional requirements and changing dietary patterns. In fact there has been a significant decline in agricultural production and exports in the last decade. By 1990 the Region had become a net importer of food with agricultural products exceeding US$800m., and imports were expected to increase both in volume and value.[1] Obviously this led to a worsening of its balance-of-payments position which was already under pressure from other causes. I wish to illustrate this point with an example.

In Trinidad and Tobago the Food Import Bill increased almost eight-fold from TT$114m. in 1971 to TT$903m. in 1982. Imports provided an increasing share of domestic food supply rising from 70% to 90% over the period 1976-1980. During this period (1973-1982) the Agricultural Sector recorded declines in almost every area. Agriculture's contribution to total real Gross Domestic Product declined from 5.5% in 1973 to 2.8% in 1982.[2] The figures for the other Caribbean territories are no more encouraging.

The starkness of these figures clearly demonstrates that national policies with respect to Agricultural Development in a predominantly agricultural region have not been successful, and thus the implications for agro-industrial development are clear.

FOOD PRODUCTION AND AGRO-INDUSTRIAL DEVELOPMENT

The magnitude and multitude of obstacles facing the transformation and development of the Agricultural Sector in the Region reflect the legacy of historical experience throughout the Colonial era and these are well documented and discussed. [3,4,5] It was against the daunting odds and the continued failure of national policies that the Governments of the Region recognized the need for regional efforts toward greater self-sufficiency and steps were taken to begin development of a Regional Food Plan. Thus the "*integration of production*" approach was born when it was recognized that planning for the orderly development and expansion of the Agricultural Sector and the need to break the extreme dependence on food imports must be bound up with the parallel and coordinated development of the Region's agro-industrial capability.

Agro-industrial development can be defined as the integration of the activities related to the production of renewable resources - including fruit, vegetables and rootcrops as well as livestock products, post-harvest handling, processing and marketing.

agro-industrial development in the Commonwealth Caribbean with particular reference to fruits and vegetables, and more recently the potential for dairy, processed meats and even marine products have been clearly demonstrated. However, the development of a viable agro-industrial capacity itself depends critically on the extent to which the Region can successfully address problems related to the supply of raw materials for these industries. These problems, in turn, rest on several factors which affect the efficiency and vitality of regional and domestic agriculture.

While the potential for domestic consumption, which includes inter-regional trade, is clearly established on the basis of an ever-increasing food import bill, and there are indications of a ready market for good quality processed products in North America and Europe, progress with development in this sector has continued to be disappointing both as to the scale and with respect to the creation of linkages and use of local raw materials. The reasons for this has been exhaustively examined, and some of the major constraints and deterrents have been attributed to the following:

(a) Problems of assuring supplies from the domestic agricultural sector, including factors of quality, quantity and reliability of supplies;
(b) A poorly developed and maintained infrastructure for the production, processing and marketing of food crops;
(c) Relative high cost per unit of raw material compounded by scales of production resulting in high cost per unit output;
(d) A lack of managerial and trained personnel with an adequate knowledge of proper processing technology;
(e) High cost and unavailability of packaging materials;
(f) Lack of policies and related measures to protect and promote small-scale agro-processing into a potentially viable sector;
(g) Low foreign exchange reserves.

While some of the major constraints have been identified above, processors have themselves elaborated other areas of concern. Finance has surfaced as a major problem, with the following difficulties cited:[8]

- finance not readily available
- high rates of interest
- level of collateral security asked for by lending institutions
- credit not available.

RAW MATERIAL SUPPLY

In the Commonwealth Caribbean, except for the traditional export crops, there exists little or no infrastructure for the production, handling, processing and marketing of food crops. Furthermore, the agro-industrial sector has never had close links with the raw material producers. In addition the major concern of this sector has been to obtain the maximum economic benefit at the lowest cost.

The result of all this has been low productivity leading to relatively high cost per unit of raw material, and where the raw material may exist there is conflict with raw material producers which results in raw material supply crises.

Processors then are either constrained to obtain their raw materials from sources where the reliability and quantity of raw material supplies are very irregular and the quality suspect, or the raw material supplies are imported depending on the availability of foreign exchange. The lack of a direct link between the user and the raw material producer, along with deficient handling and storage and the lack of adequate packaging, have also resulted in serious post-harvest losses, and are causes for major concern.

TRAINED MANAGEMENT PERSONNEL

In the English-speaking Caribbean there exists institutions with the wealth of knowledge on agro-processing. Some of these include the Food Technology Unit of the Department of Chemical Engineering, UWI, St. Augustine, Trinidad; CARIRI, Trinidad; the Food Technology Institution - JIDC, Jamaica and the Produce Chemist Laboratories throughout the Eastern Caribbean territories. These institutions collectively are involved in training and research and development work in Food Preservation and Processing. To date the Food Technology Unit, UWI, has turned out over 90 qualified food technologists and has carried out a number of training programmes through the Continuing Education and Extension Service Programme. However, the present structure of its academic programme, while equipping the graduate with sound theoretical knowledge and principles of food processing, cannot provide the experience of manufacturing operations and commercial practice.

Furthermore, because of the shortage of proper management personnel, the recent graduate is expected to enter the decision-making machinery of the world of manufacturing and commerce and assume responsibilities for which he was or is not equipped.

The situation becomes even more critical when dealing with the medium and small scale agro-processor where there is a lack of back-up facilities, and the (food) technologist must be a "*jack-of-all trades*".

The agro-industrial sector is also still very dependent on imported technologies and production equipment. This dependency has created a need for training at all levels, and especially at the lower level of the organisational structure, i.e. foreman and supervisors, so that the processing technology can be clearly understood, and, if necessary, modified to suit the local conditions.

IMPACT OF LOW FOREIGN CURRENCY RESERVES

Low foreign currency reserves have severely limited the quantity of funds that could be utilized for capital investment towards the establishment of efficient agro-processing enterprises, and for purchasing of needed equipment, spare parts and other inputs like packaging materials.

The high cost of packaging materials, even when manufactured in MDC's and the unavailability of the more widely used flexible packaging films are therefore major constraints in the Region generally, and the Eastern Caribbean in particular. It is generally easier for the Eastern Caribbean territories to obtain packaging supplies from North America or Europe, but at the expense of their hard currency reserves.

Furthermore, because of the scale of production the small volumes ordered result in higher unit cost. Packaging and labels are costly and when purchased in small quantities are even more costly.

In spite of the pronouncements of governments in the Caribbean Region with respect to the urgent need to develop agriculture and agro-industry as a key pillar of the national economy, there appears to be a lack of clear policies and related measures to promote and protect agro-industrial development into a potentially viable sector. In particular, food import policies which counteract the imperative to produce and utilise local food must be addressed.

There are of course other areas to consider and overcome. One is the inherent belief that locally produced goods are inferior in quality. The other is the power of vested interests. Most of the distributive outlets which control marketing in the Region developed as major stocks and commission agents for imported goods. Thus they tend to see local manufacturers more as competitors than as suppliers. It is therefore not unusual for the same enterprise to earn the importers commission, wholesale mark-up and retail mark-up on a product before it gets to the consumer. The end result is very little market thrust for locally processed agro-industrial products.

Another factor which must be addressed is the absence of concrete backward linkages between the established food and beverage industry, the tourist sector which uses substantial quantities of agro-industrial products and primary production. Neither primary production output nor that from the processing sector has been effectively linked to any of these sectors.

Models and recommendations for the development of a viable agro-industrial sector in the Region have been proposed [9,10] but there is a singular reality to be faced, that for a potentially successful and viable agro-industrial sector, the problems related to primary agricultural production have to be tackled. This will require the allocation of a substantial amount of resources to this sector, but the potential payoff with regard to foreign exchange will in itself be a vital boost to efforts to revitalise economic growth as a whole.

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