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DEVELOPMENT VS. SELF-SUFFICIENCY: SOME MARKETING CONSIDERATIONS
FOR TRINIDAD AND TOBAGO*

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Summary

1. The food marketing system in Trinidad and Tobago is a serious limit on meaningful economic development.
2. In the interest of overall development, it is unwise to increase local food production and leave the marketing system unchanged, marketing development must be concurrent with production growth.
3. Even if food production is increased in the short run, failure to develop suitable marketing arrangements is likely to lead to a decrease in farm production and a resort to further imports in the long run.
4. There exists the need for greater levels of farmer involvement and more meaningful state participation in all levels of planning, input supply, production and marketing.

Introduction

While there has been much discussions on the possibility of Caribbean islands becoming self-sufficient in food, there has been insufficient attention paid to development in the distribution sector to ensure that the fruits of increased production will reach to all consumers. This paper seeks to underscore the importance of developing the marketing system concurrently with development in production. Indeed, it is evident that even if food production is incurred in the short run, failure to develop suitable marketing arrangements is likely to lead to an eventual decrease in farm production in the long run. While the discussion in this paper will resolve around the situation in Trinidad and Tobago, the main thesis certainly has relevance for the entire Caribbean area, and indeed for all other underdeveloped countries.

Definitions of Development and Self-Sufficiency

Self-sufficiency in our context refers to the ability of a country or region to produce all or the vast majority of its foods within the economy and thus render itself independent of imports from outside sources. This state is the antithesis of the present situation in which the region is encumbered with a large food import bill of about \$500 million. Much has been said and written about this food import bill and indeed the theme of the conference is ample evidence that food inputs and self-sufficiency are matters worthy of serious attention.

Development on the other hand, refers to the creation of the conditions for the realisation of the human personality. Rodney [6] declares that "at the

* The authors are grateful to Michael Lim Choy who read an early draft of this paper and offered constructive comments.

level of the individual it implies increased skill and capacity, greater freedom creativity. Self-discipline, responsibility and well being" and that the achievement of any of the above aspects "is very much tied to the state of society as a whole". The conditions in the society referred to above include social, cultural, political and economical ones. Rodney states that "a society develops economically when its members increase their capacity for dealing with the environment". Any concern with development then must be concerned with much more than per capita income, there must be a concern with the levels of structural transformation, with the availability of skills and capital, with the level of housing, health and the extent to which the society is well fed. Food marketing is perhaps most intimately concerned with the last index - the feeding of the population. Impressive figures of per capita income existing with a high incidence of malnutrition is not evidence of development.

A society which has succeeded in producing its food needs must ensure that the food is efficiently distributed in the society. Development then would result when the systems in a society ensure equitable distribution of resources.

The Role of Food in Development

It would be indeed pedantic to outline the role of food (and the agricultural sector which produces it) in economic development. The writings of Mellor and Johnson [5,7] are known to all and it is appreciated by all that adequate and well-balanced supplies of food serve to keep the population well-fed, healthy and more productive, keeps down inflation and increases the surplus for reinvestment and economic transformation.

The Role of Marketing in Development¹

Agricultural marketing involves the performance of all the business activities required in getting produce of the farm to the consumers in the quantity, quality, form, time and place desired; and the development of a system of exchange, pricing and communication among participants in the system [3,4,8]. This definition implicitly recognises marketing as being concerned with customer satisfaction. This dictates among other things the need to collect data relevant to consumer demand as an integral part of any marketing activity.

It is convenient to attempt a classification and description of the marketing functions. These functions include [3,4,8]:

- A. Exchange functions
 - (i) buying
 - (ii) selling; and
 - (iii) pricing.
- B. Functions of physical supply
 - (i) transportation and handling;
 - (ii) storage; and
 - (iii) processing and packaging
- C. Facilitating functions
 - (i) information;
 - (ii) financing and risk acceptance;
 - (iii) grading;

¹This section draws heavily from [4].

- (iv) supervision;
- (v) research and development; and
- (vi) demand creation.

The exchange function in a sense may be seen as central to the marketing process. It may be instructive to note that while the process of buying a product sometimes appears rather simple, the process could in fact be a very complex one. The demand for a product by a consumer may be seen as a function of economic, sociological, psychological and demographic factors. Economists have traditionally concentrated on the economic factor, which recognizes a central problem of the consumer being one of allocating income among a range of goods and services. The major factors which would influence allocation of income being the price of the commodity in question as well as the prices of other goods, and the total disposable income.

Many other factors, however, influence an individual's buying decision. Peer group and family group influences are oftentimes very important. Then too, consumers develop attitudes to products which would influence their purchase. Demographic factors of age and sex also enter to influence what type of products and individual would buy.

The physical functions of transportation move products through time and space. Since agricultural production is usually spatially dispersed it takes place very often some distance away from the main centres of consumption. Transportation then is of critical importance and must ensure adequate protection for the produce against damage and deterioration. Storage is perhaps even more critical than transportation in imparting time utility to products.

Agricultural production is seasonal and subject to violent fluctuations, whereas consumption tends to be much more stable. More than this, however, agricultural products are highly perishable, moreso in the tropics and the time lag between production and consumption could result in high shrinkage and spoilage losses. Storage would permit an evening out of supplies and minimization of spoilage and shrinkage loss.

Processing involves the transformation of a product to provide form utility. It is especially in the function of processing that may reside the great impetus for industrialization. But the function of processing ensures that the proper grade and strains of product are produced. This is so because of the technical processes which are often involved. The provision of form utility must also rest on a clear vision of what the consumer in fact needs. This necessitates their accurate information from the consumer. Marketing is about satisfying consumer needs, and processing is poised at a critical junction in the marketing task of producing time, form and place utility.

The information that has been identified as being important, is obtained through the research and development function. It is this information which must dictate the selection of systems of transport, storage, processing, grading, packing, handling, and the entire communications mix. Research and development must also uncover new products and new markets. Information permits communication between consumers, producers and other participants in the system. The information network would allow consumers to be aware of the price, form, quantity and quality and variety of products

available, and thus aid their decision-making process. Processors and farmers would also become aware of consumer desires which ought to guide their own production decisions.

Most development planning has tended to attribute a passive role to marketing as part of the development process. Investments in industry, agriculture and basic infrastructure have been emphasized. Most aspects of marketing have been relegated to a secondary and adaptive role rather than an active or leading one. Discussions on development have tended to devote attention almost exclusively to the problems of increasing production, relieving capital shortages and reducing unemployment. While all these facets of development must be considered, distribution too has a role to play, and a much more important role than is generally recognised. Indeed, increased agricultural productivity will not be translated into a proportionate increase in the level of real income in an economy in which the distributive system is inefficient and wasteful of resources. Hence the economic need for an efficient marketing set up is imperative. A large marketable surplus necessitates an efficient marketing structure and an efficient marketing structure has a powerfully stimulating effect on the emergence of additional surplus.

The attainment of marketing efficiency in the agricultural sector could correct certain paradoxical situations which exist particularly in developing countries. Good seasons very often coincide with low total revenues to farmers. Efficient marketing would ensure that the increase in quantity is absorbed through either effective storage, proper distribution or channelizing latent demand.

An effective marketing sector does not merely link sellers and buyers and react to the current supply and demand situation. It has a dynamic role in stimulating both production and consumption. On the one hand, it activates new demands by improving and transforming farm products and by seeking out and stimulating new customers. On the other hand, it guides farmers to new production opportunities, and encourages greater production in response to demand. In practice, however, the difficulties and complexities of marketing processes and their significance at heavy cost to economic development. Attention in national planning and investment effort has too often focussed excessively on production, under the assumption that once crops are produced and roads built a marketing structure will spring up almost automatically.

Marketing must be seen then as consisting of a vital set of activities which serve to coordinate production and consumption. The marketing concept recognizes the need for total integration of activities to satisfy consumers. Given this concept it is indeed difficult to impose an arbitrary classification of *production* and *marketing*. It may be best to view the food marketing system as a set of interrelated stages of production activity, which must include farm production, procurement, assembly storage, processing and distribution of food products to consumers; as well as the manufacture and distribution of agricultural inputs such as seed, fertilizer, animal feeds, chemicals, machinery and equipment. Coordination of all these is achieved through the marketing system.

Given this need for integration, it would seem fruitless to induce development in the physical production of goods without ensuring complementary development in the distributive facilities. This is true not only

in the agricultural sector, but in all other areas of development as well.

Review of Data on Self-Sufficiency

The Caricom region, we are told imports \$500 million worth of food and the major constituents are shown in Table 1.

Table 1. Major Constituents of Food Import Bill and Proportions for Caricom Area.

Major Constituents	Value (\$m.)	% of Total
Meat	90	18
Dairy products	90	18
Vegetables	50	10
Feedingstuffs	30	6

Source: Speech of the Prime Minister, Oil and Food Conference, Chaguaramas, Trinidad & Tobago, January, 1975.

The figure for food imports of Trinidad and Tobago for the year 1973 was \$154 million or about 10 per cent of total imports. The major constituents of the 1973 total and their proportions are shown in Table 2.

Table 2. Major Constituents of Food Import Bill and Proportions for Trinidad and Tobago, 1973.

Major Constituents	Value (\$m.)	% of Total
Meat & Meat products	23	15
Dairy products	27	17
Cereal & Cereal preparations	42	27
Vegetables	26	17
Feedingstuffs	14	9

Source: C.S.O. Overseas Trade Report, 1973. Part B, Trinidad & Tobago, 1974.

While the above table refers to food products as a percentage of the total food import bill, figures of the dependence on imported items may be even more revealing (Table 3).

Development programmes for self-sufficiency must be carried out against the background of the nutritional requirements of the society and should take into account the present nutritional status of the population. The latter from all accounts leaves much to be desired.

Table 3. Percentage Imports of Selected Food Items: Trinidad & Tobago, 1970.

Item	% Imported
Wheat flour	100
Dry peas and beans	98
Beef	67
Pork	20
Mutton	90
Fish	71
Dairy products (other than fresh milk)	100

Source: MacDowell, J. *A Review of Information on Trinidad & Tobago with particular reference to Agriculture and Food*, CFNI, 1973.

Review of Nutritional Levels

The Caribbean Food and Nutrition Institute (CFNI) has presented a paper to the Conference on food supplies and the nutritional status of the peoples of the Commonwealth Caribbean in which the nutritional levels of certain territories are described. We do not seek to duplicate this task but it is important for us to emphasize that as far as nutrition is concerned, Trinidad and Tobago's nutritional status is very unsatisfactory. In 1970, 30 per cent of families failed to meet their protein needs, 33 per cent failed to meet their iron needs and 30 per cent failed to meet their calcium needs. Even in the case of calorie needs, the position is very unsatisfactory - 39 per cent of the families interviewed failed to meet the requirements for healthy living [9].

The general effects of the above are known to most of us to - a high incidence protein - calorie malnutrition (marasmus and kwashiorkor) and relatively high infant mortality rates (37 per 1,000 in Trinidad).

Any attempt to understand, and ultimately alleviate the nutritional problem must come to terms with the nature and problem of internal food marketing and distribution.

The Food Marketing System in Trinidad & Tobago

The plantation legacy in the Caribbean has dictated the structure of the food marketing system in the region. Agricultural production and trade of the region has been geared to external markets. Correspondingly much more attention has been devoted to nurturing and maintaining overseas preferential markets and trade contrary to our real development needs which in most cases force export as a structure of production. The plantation system clearly discourages the production for local consumption of food crops and livestock thereby creating a dependence on imported food. The legacy of the system was the location of these activities on poorer quality lands in the mountainous areas and serviced by a marketing system which is still essentially neglected and underdeveloped [4].

Central to the internal food distribution system is a market vendor system. These vendors deal in relatively small quantities of a range of products. Their persistence in the marketing system may in part be a reflection of the spatially dispersed nature of the production units. The system, however, does not provide an adequate outlet for farmers in times of surplus production. Notwithstanding the short-comings of this system, however, and the attempts to develop other channels through public marketing agencies, this vendor (or higglering) system persists.

Governments in some Caribbean countries have set up marketing agencies or boards to regulate the marketing of agricultural products. While there are varied experiences these agencies have not been very successful in stimulating, and streamlining agricultural marketing. Certainly in Trinidad the Central Marketing Agency (CMA) which simply took over the operations of its predecessor, the Marketing Board, has failed to develop an efficient Food Marketing System. This failure is in part due to the ambivalence of public officials towards the Agency. The Agency still lacks adequate storage facilities, has no processing facilities, and has been unable to win the confidence of the farmers. A further reason for its failure is because the Agency has maintained its position in the system as a buyer of last resort. The Contract System which is based upon Guaranteed Minimum Prices is inadequate and not adapted to the production system's needs. Data on price which forms the basis for making supply response decisions, has not been systematically collected and analysed by the Agency. Minimum prices are based on cost of production studies which have proven themselves inadequate. Also, information-flow between agency and farmers is minimal [4].

There have also been some attempts in Trinidad to establish food processing plants. While processing must be seen as an important food marketing function, there has to be efficient integration between processor and farmer. This integration has not existed to any great extent. The processing sector is heavily dependent on imported inputs (see Table 4).

Table 4. Percentage of Imported Raw Material Used in Selected Food Processing Industries in Trinidad and Tobago.

Type of Products Processed	Per cent of Raw Material Imported
Flour	100
Citrus	0
Chicken for fresh market	0
Pork for ham, bacon, sausages	80-90 at present
Oils and fats	20-30
Fruits and vegetables (not citrus)	80
Beer	80
Snack food	60-80
Dairy products	50-60
Spices	100
Ice cream	80-90

Note: This list does not include soft-drinks, bakeries and the large number of kitchen-type processors.

Source: Cropper et al (see reference [1].)

Indeed one factor which may account for this failure to integrate may arise from the nature of ownership and control of most processing plants. Most of the processing units are owned and/or controlled by foreign corporate concerns who set up a type of plant and use a type of technology which might be suitable for the U.S.A. but is not for the under-developed country. Further the conditions under which the corporation transfers its technology are totally advantageous to itself and consistent with its objectives and interests. We need not labour the point that at most times such objectives and interests differ from those of the local farmers and the local economy. The farmers, therefore, have little input in decision-making in the processing plants, which ought to be integral to their production decisions.

The marketing of imported food is controlled by a small number of food distributors. Notwithstanding price controls by Government on these items, however, there is no control on the quantity, quality or distribution arrangements of them. A small number of privately-owned firms, therefore, in large part determine the availability of these important items to the society. There have in the past years been numerous incidents of hoarding of essential foods such as milk, sugar, flour, butter, accompanying applications for price increases. The argument of the distributors has been a need for fair margins. Given, however, the archaic nature of company law and the passive role of the Prices Commission, there is little public evidence to substantiate the costs which firms claim they incur. Indiscriminate price increases and applications for them are therefore *very possible* in this system, in addition, of course, to the frequent 'artificial' shortages which continue. It is noteworthy that these same food distributors and importers have significant influence on food processing firms in the country, a fact which further strengthens their position in the food marketing system.

Failure of the System

1. It has been noted that there exists pockets of malnutrition in the country. This points in part to the failure of the system to provide the society at large with their minimum daily requirements of food while inadequate distribution is not the only cause of this malnutrition it clearly is an important contributory factor. This factor must be seen as relating to:
2. The presence of concomitant shortages and food hoarding in the country, so that the structure and control of the food distribution system, must be seen as one which does not ensure the equitable and consistent distribution of food.
3. This second factor underscores the power of a relatively small percentage of food distributors who are in fact able to deny the society an adequate supply of food.
4. It must be emphasized that the farmer is relatively powerless when placed side by side with the powerful commercial interests who control distribution. This point is in fact linked with the failure of plans to integrate farmers with food processors in a meaningful and equitable way. This means then that there is reinforcement of the distinction between production and producers with marketing activity.
5. The system is so designed that higher prices paid for locally-produced food very seldom, if ever, reach the farmer, whereas the distri-

but is often able to retain a significant share on any increases in food products.

6. The operation of the system has also resulted in high rates of inflation, because farmers have been given insufficient incentive to produce more food so that we continue to import. A substantial part of our food needs to come from sources which are noted for high rates of inflation.

Conclusions and Implications

Increased production, given the system, would tend to result in lower prices to farmers, eventually to food shortages, and a further dependence on food imports. Any attempt at self-sufficiency which aims at increased production must, therefore, come to grips with these results. This increased dependence on imports would lead to a further strengthening of the small group of food importers and their potential to cause inflation, and maintain the level of malnutrition in the country. This clearly is contrary to any serious move to development. Self-sufficiency *per se*, does not therefore ensure development, and higher quality of life which results from development.

Self-sufficiency *per se* then, without marketing development, may be likened to a dog chasing his own tail. There immediately comes to mind Tantalus, the Greek mythological character whose divine punishment was to roll a huge stone up a steep hill, only to have it tumble down again.

Any discussion of self-sufficiency, therefore, must recognise the need for a restructuring of the food marketing system if development in fact is to be achieved.

Towards an Integrated Approach

In the opinion of the writers the following are the necessary elements of a successful agricultural sector:

1. adequate planning at all levels;
2. efficient and reliable system of input supply;
3. efficient production systems;
4. efficient marketing systems; and
5. equitable income distribution.¹

Because the system of marketing has not ensured optimum involvement of farm producers and has permitted to develop, groups which control input supply and marketing, there has not been any efficient and equitable integration in the agricultural sector. Any discussion of development must therefore focus on ensuring that farm producers are involved in decision-making and control of all aspects of the agricultural sector outlined above.

Because of the structure of the agricultural sector, the State must therefore assume the leading role in ensuring this integration, and must itself participate in the system, if it is to deliver the higher standard of living which development entails.

¹This does not deny the importance of other elements of land reform, extension services, credit, infrastructural development, etc.

References

1. Cropper, J., Sammy, G. and Wiltshire, W. *Approaches to Developing Integrated Food Crop Production and Processing in Trinidad and Tobago*. Bulletin No. 1, Trinidad, 1974.
2. Katzin, Margaret. "The Business of Higglering in Jamaica". *Social and Economic Studies*. Sept. 1970.
3. Kohls, R.L. *Marketing Agricultural Products*. 3rd Edition, MacMillan Co., New York, 1957.
4. McIntosh, C.E. and Lim Choy, M. *The Performance of Selected Agricultural Marketing Agencies*. Occasional Series No. 11, Dept of Agric. Econ. & Farm Management, U.W.I., Trinidad, 1975.
5. Mellor, J.W. *The Economics of Agricultural Development*. Cornell Univ. Press, 1966.
6. Rodney, W. *How Europe Underdeveloped Africa*. Bogle-L'Ouverture Publications - Tanzania Publishing House, London, Dar es Salaam, 1972.
7. Southworth, H. and Johnson, B. *Economic Growth and Agricultural Development*. Cornell Univ. Press, 1967.
8. Stout, T.T. "Performance and Control of the U.S. Beef Industry". *Canadian Journal of Agricultural Economics*. Workshop, 1970.
9. Papers by Byam, N.T.A. and Quioque, E.S. in the Proceedings of the Seminar held from 27-30 November, 1972, National Nutrition Council and Caribbean Food & Nutrition Institute, Trinidad. Food and Economic Planning in Trinidad & Tobago.