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Priorities for an Agricultural Diversification Thrust in Trinidad and Tobago

INTRODUCTION

Background

For a long time, Trinidad and Tobago was an agriculturally based economy producing plantation crops for the export market. It was not until the early part of the 20th century when the production of oil (petroleum), and asphalt (to a lesser extent), were commercialised that the economy gradually reduced its dependence on agriculture and became dependent on oil. However, agriculture up to the early 1950s contributed upwards of 20% of GDP. Over the last years, attempts have been made to further diversify the economy and to establish and/or strengthen linkages between sectors of the economy in order to reduce the reliance on petroleum. Intensive efforts were made to diversify the economy, with emphasis on the petro-chemical and energy based sector (natural gas, fertilisers, methanol, iron and steel) and other manufacturing. Since 1987, one of the major thrusts has been in tourism especially infrastructural development in Tobago.

With respect to agriculture, this sector has been undergoing, for a long time, some form of diversification. At the plantation level, the crops produced have been cocoa, coffee, banana, citrus, coconuts, and sugar with very little livestock. Production however, has been usually in one or two crops. Over the years, the output of most of these commodities has declined and the export of banana, citrus and coconuts has become non-existent (Tables 1 and 2). Production has been geared only for the domestic market and domestic production has had to be supplemented by imports.

At the small farm level, historically farmers have produced a wide range of fruits, vegetables, root crops, legumes and livestock (cattle, pigs, buffalo, small ruminants, poultry) for subsistence and/or sale on the local

market and this was intensified after the abolition of slavery (1833/37).

In the 1960s, Government deliberately attempted to restructure the agricultural sector, and to break the dichotomy between plantation and small scale farming by the implementation of the State Lands Development Project. In fisheries, efforts have been made to maintain and expand production by diversification of the production base through the use of deep-sea trawlers, aquaculture, plus improved technology in demersal fishing, establishment of a fish processing plant and the development of a large number of modern fishing centres at the landing sites.

In short, the agricultural sector for a long time has been undergoing diversification and this will continue, given the availability of resources. With the country's limited resources, existing farm structure, the high food import bill, inadequate foreign exchange allocations to procure imported goods including food, high unemployment, and a capacity to produce agricultural commodities, it is necessary to identify specific areas as priority for development so as to maximise resource use.

Some Considerations in Diversification

The Definition of Diversification

Diversification is generally taken to mean modification to the specific operation, by making it diverse, different, multiform or changeable.

In economics, the term diversification at the micro level refers to a firm (farm or other business entity) producing a new product without necessarily ceasing production of its existing products. However, the firm/farm may vary the quantum of its previous output of products. The term includes the firm which produces a wide range of different products, utilising by-products,

**TABLE 1: Sugar Production, Exports and Imports, Trinidad and Tobago
1982 – 1987 (Thousand of Tonnes)**

Year	Production	Exports	Imports
1982	79.9	51.0	26.0
1983	77.4	62.0	48.9
1984	69.7	64.1	68.6
1985	80.9	66.0	33.4
1986	92.3	57.2	26.0
1987	85.4	53.4	14.7

Source: Central Statistical Office
Caroni (1975) Limited

**TABLE 2: Production and Exports of Cocoa, Coffee, Citrus, Trinidad and
Tobago 1982 – 1987 (Metric Tons)**

Year	COCOA		COFFEE		CITRUS**	
	Production	Exports	Production	Exports	Production	Exports
1982	2247.2	1906.0	1794.0	1574.0	1836.0	121
1983	1732.2	1690.9	1388.7	859.0	2939.0	10
1984	1560.1	1500.3	825.1	—	3264.0	4
1985	1307.0	1305.6	2141.0	754.7	6079.0	—
1986	1426.1	1305.1	1333.7	802.2	4331.0	5
1986 Jan – Sept.	1193.2	1203.0	1331.8	802.2	3805.0*	—
1987 Jan – Sept.	1427.8	1410.4	1840.7	668.0	2869.0*	—

*Jan – June

**Excludes Limes

Source: Central Statistical Office
Cocoa and Coffee Industry Board
Co-operative Citrus Growers' Association

from what would have been considered waste. In addition, the aim may be to make the firm independent of the vagaries of the market for a single product, or at least to cushion the impact of market vagaries to enable viability.

At the macro level, the term refers to the provision of a greater variety of industries or enterprises to a region or to a country, to reduce the impact of the vagaries of trade which can cause unemployment and the unfavourable consequences which emanate therefrom.

Objectives of Diversification

Some of the major objectives of diversification are as follows:

- (i) At the national level: to increase food security; to increase exports and foreign exchange earnings; to conserve foreign exchange outflows by the substitution of locally produced goods; to minimise unemployment and its social and economic consequences; and to create linkages between sectors of the economy.
- (ii) At the farm level: to increase total incomes; to improve cash flow; to increase the efficiency of available resources which may be under-utilized; to minimise risk and uncertainty by compensation for seasonal or cyclical fluctuations; to reduce the impact of damage from pests and diseases, natural vagaries, etc.

Constraints to Diversification at the Farm Level

While diversification may reduce variability in farm incomes, care must be taken to determine the optimal enterprise mix. The optimal mix of enterprises must be a precondition of diversification. The extent of diversification is also limited by the variability of each enterprise.

In addition, at the farm level, other constraints include: (i) Credit; (ii) Marketing; (iii) Processing; (iv) Research; (v) Training; and (vi) Incentives.

The Benefits of Diversification

Some of the major benefits of diversification may be categorized as follows: food security, foreign exchange earnings and

savings, employment creation, establishment of linkages in the economy; and efficient utilization of resources.

1. Food Security

Any consideration of food security must encompass the nutritional well-being of the population; as well as economic and political factors. While it may not be possible to attain total food security, given the realities of international trade – protectionism, global shortages, and high prices, it is incumbent on the nation to provide a pre-determined level of food for security which of necessity, will encompass measures such as production, processing, storage and distribution. The costs of these measures, while they may be burdensome, nevertheless, must be considered as part of the overall national strategy of providing food security for the nation.

2. Foreign Exchange Savings and Earnings

Trinidad and Tobago's food imports for the last 5 years averaged TTS\$852 million. There is excellent scope for import substitution. With respect to foreign exchange earnings, increased exports are feasible, by efficiency in the use of existing resources.

For example, while exports of the traditional crops: sugar, cocoa, and coffee have been declining, given present prices, if export levels were as high or higher than pre-1973 levels, foreign exchange earnings would increase substantially.

3. Employment Creation

One phenomenon of agricultural development is that as the sector develops, employment declines. Trinidad and Tobago has been no exception. In 1970, employment in agriculture accounted for 23.4% (86,000) of the total labour force. By 1979, this had declined to 10.6% (48,000) and by the end of 1986, it stood at 9.4% (44,000) out of a total labour force of 472,000 (Central Statistical Office). However, since the early 1980s, with the downturn in the economy, increasing unemployment in other sectors such as construction and manufacturing, additional labour is now available to agriculture. The unemployed have reverted to the land to eke out a living. Many are squatters who, at present, reportedly number over 25,000. When this is added to the 35-40,000 holders of land this gives a farming population of approximately 60-65,000.

There is scope for increasing direct employment in primary production. However, additional employment may be generated through a concerted effort at developing the agro-processing industry with the necessary linkages between sectors. The aging population is a constraint. Over 79% of the country's present farming population is 40 years and over, with 56% over 50 years. Less than 2% of farmers are under 25 years. In order to ensure the continued development of agriculture, young people must be encouraged into farming, utilizing the education system at all levels. Appropriate incentives must be put in place to attract youths to agriculture. Present policies unfortunately, have not been encouraging.

4. Establishment of Linkages in the Economy

To generate the desirable benefits of economic transformation and development, it is necessary to create the environment for the enhancement of backward and forward linkages in the economy including: production, processing, marketing, tourism, research and development. Industries being considered for diversification should have as a high priority, net foreign exchange savings with greater reliance on locally sourced inputs.

5. Efficient Utilization of Resources

In any diversification programme, a significant benefit should be the more efficient use of under-utilized resources. For example, inter-cropping may enhance land use efficiency. Also, crop rotation may be practised year round, e.g. swamp lands which produce rice in the rainy season and vegetables in the dry season. Also, in plantation crops such as coconuts, cattle (dairy/beef) and small ruminants can be reared once the plants are over a certain height. In the case of sugar cane, greater utilization of raw materials and by-products may be possible, such as the use of cane and bagasse for animal feed, bagasse for particle board manufacture, fuel, waxes, fertilizers, soil conditioners and a range of sucro-chemicals.

Cost of Diversification

Diversification has its benefits as well as its costs. The farmer must precisely determine his cost, when embarking on any diversification programme. The State as well, must estimate the total cost of its diversification programme and this should be amortized over

time. Transformation of the agricultural economy will of necessity take a long time. The speed with which diversification of an enterprise or economy takes place may be influenced by available resources, confidence of the investors, the political will, the social consequences and alternatives which may be available, among other things.

GOVERNMENT'S POLICY ON DIVERSIFICATION

The Draft National Agricultural Development Plan (1988-92) states that one of the major policy objectives is to achieve the "maximum degree of self sufficiency in staple foodstuff consistent with the natural resource endowment and the maximisation of export income."

Implicit in this statement is the need to increase local production of crops/livestock, and fisheries products and the widening of the production base in terms of raw materials and processed inputs and outputs, in an attempt to satisfy domestic demand and diversify from the traditional exports.

At the same time, the nutritional well-being of the population may be achieved, not only by producing the foods required, but by educating the population in good eating habits consistent with such factors as income, taste, tradition, religious and ethno-cultural influences. Given the nutritional considerations therefore, production of commodities in the major and minor food groups is important.

Increased Production of Local Food

If self-sufficiency is measured in terms of the balance of agricultural trade, over the last three decades, Trinidad and Tobago has moved from a situation where 80% of its food imports were covered by agricultural exports to the present time where the figure is about 10%.

To achieve greater self-sufficiency, a package of measures is required, including:

- (a) The increased production of domestic food
- (b) Implementation of a food imports policy
- (c) The provision of adequate incentives to farmers
- (d) Development of a food stock management policy.

Priorities for Agricultural Production

Present Government policy has identified production priorities based on the level of food security, national nutritional requirements and the domestic productive capacity. More recently also, the critical foreign exchange situation has forced a rapid import substitution policy. The production priorities are outlined in Table 4.

TABLE 4: Production Priorities for Agriculture for Trinidad and Tobago

Commodity Group	Rank
(i) Cereals and Grains	1
(ii) Fruit and Juices	2
(iii) Milk Products	3
(iv) Fats and Oils	4
(v) Meats and Products	5
(vi) Pulses and Nuts	6
(vii) Vegetables	7
(viii) Roots and Starches	8
(ix) Fish and Products	9
(x) Eggs	10
(xi) Cocoa and Coffee	11
(xii) Sugar and Syrups	12

Given the limitation of resources and current commitments, three commodities were subsequently identified for immediate attention. These are: (i) rice, (ii) pigeon peas, (iii) cassava, from the commodity groups Cereals and Grains, Pulses and Nuts, and Roots and Starches respectively.

Scope for Import Substitution

In spite of the range and quantity of the commodities produced, the country has continued to exhibit a relatively high food import component. There are difficulties involved in attempting to effectively reduce the food import bill. The reasons for these difficulties stem "inter alia" from:

- (a) The country's propensity to import. This is a legacy from the colonial period and this phenomenon was heightened during the "oil boom" years. This includes the consumption of the

kinds of goods not locally produced e.g. wheat flour, "Irish" potato, apples, pears, grapes, peaches, plums, canned/bottled products such as jams, jellies, alcoholic beverages (whisky, wine, gin, liquers).

- (b) The setting up of "screw driver" industries which assemble imported raw materials, e.g. feeding stuff for animals (corn, soya, premixes, etc.), tomato paste, vegetables for canning, etc.
- (c) The political clout amongst importers/distributors and processors with relevant authorizing agencies.
- (d) The lack of adequate linkages among domestic food industries to local sources of supply.
- (e) Inadequate production base for the range of commodities required.
- (f) The availability of foreign exchange for food imports.

All available data indicate that the country has the capability to produce not all but large portions of its imported food. In particular, there is much scope for increased domestic production in some areas, such as:

- (i) Meat and meat production
- (ii) Dairy products, eggs and honey
- (iii) Fish and fish preparations
- (iv) Cereal and cereal productions
- (v) Fruits and vegetables
- (vi) Sugar and sugar preparations
- (vii) Coffee, tea, spices, miscellaneous manufacturers
- (viii) Feeding stuff for animals.

CONCLUSION

The preceding discussions has indicated that diversification in all, or most sub-sectors of agriculture is a reality. A wide range of agricultural commodities, traditional export crops, root crops, vegetables, livestock, fishing and forestry products are produced.

These goods are produced by a cross section of farms, sole proprietors (including squatters), partnerships and companies (both private and state) on small, medium and large farms.

While Trinidad and Tobago has traditionally been a net importer of food, since World War II, an increasing amount has come from local sources. However, during the "oil boom" years the country reverted to sourcing most of its food from abroad. This was due to the large surplus foreign exchange that was available, the demand of consumers including tourist and foreign workers, surplus disposable incomes and lack of adequate agricultural policy to ensure the growth and development of the domestic sector geared to producing a larger share of the country's food requirements.

In most sub-sectors of agriculture the country has the capacity to widen and deepen the production process to meet a greater share of the food demanded by processors and final consumers. What is therefore required, is an action plan to harness the resources and marshal the productive sector to produce the goods identified.

Recently 12 priorities have been chosen by the State and ranked on a scale one to 12. The prioritisation was based on: (i) degree of self-sufficiency, (ii) nutritional requirements, (iii) foreign exchange savings, and (iv) technical and economic feasibility. From this group of 12, three have been selected by the Ministry for immediate focus; they are: rice, cassava, and pigeon peas. However, the State has some difficulty in severing activities and resources from existing commodities and channelling them elsewhere.

RECOMMENDATIONS

Having regard to the above it is recommended for consideration:

- (i) That certain commodities which can have a big impact on the food import bill be identified and the appropriate measures be taken to increase production and processing where necessary, e.g. feeding stuff for animal, rice, fish, i.e. prioritisation should be kept under constant review.
- (ii) That the State as far as possible should not embark on direct production, except perhaps through selected state

companies. e.g. Caroni (1975) Ltd. Production should be left to private farmers and private companies.

- (iii) The State should formulate comprehensive and consistent policies that send the right signals to farmers. This should be supported by an appropriate package of incentives which are easy to administer, timely, and of direct assistance to farmers.
- (iv) Given the limitation of financial resources at this time – and this is expected to continue in the short to medium term – the State may consider it advisable to channel its scarce resources in a few selected areas to achieve optimal results. Spreading limited resources too thinly may not result in any impact which can stimulate and sustain the efforts of farmers.

REFERENCES

¹Central Statistical Office Quarterly Agricultural Report Various Issues, Port of Spain, Trinidad.

²Ministry of Food Production, Marine Exploitation, Forestry and the Environment (1987), Draft National Agricultural Development Plan (1988-92), Government Printery, Trinidad.