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THE DOMINICA BANANA INDUSTRY AN ECONOMIC HAZARD

- by -

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It is not dangerous, *per se*, for a country to depend on a single industry for its economic survival. Many viable economies are built around one industry. Before falling into narrow specialization, however, a country must ascertain that the particular industry on which it depends is economically sound. Insofar as the Dominica banana industry is concerned, this means primarily that a thorough assessment must be made of the short-and long-term demand conditions with which the product is faced. In addition to this, the optimal use of resources must be ensured. The product, either directly or indirectly through the development of subsidiary industries, must guarantee the full and continuous use of the available land resources, the developing infrastructure, credit institutions and perhaps most important, since full employment is an overriding objective of growth, must be able to provide adequate and remunerative employment for the country's labour force. If the industry fails in these, it cannot reasonably be allowed to stand on its own.

The purpose of this paper is to show how far the Dominican Banana Industry falls short of what is required. But first we must take a look at the relative importance of the industry to the economy.

The Export Picture

A very limited group of commodities feature in Dominica's export statistics. They are, in descending order of importance, bananas, limes and lime products, essential oils, coconuts (mainly in the form of copra), fresh citrus, cocoa and vanilla. Smaller quantities of a larger variety of agricultural products vie for the remaining places. These include : avocados, ginger, mangoes, pawpaw, and a number of foodcrops grown principally for local consumption.

The most important economic crops are grown almost entirely for the export market with the margin between total production and export hardly ever measuring more than 3%. Indeed, in the case of bananas it may even be less. Besides strictly agricultural produce, a small but growing quantity of 'manufactures' including cigars, handicraft products, and rum, are exported. (Appendix Table 1 shows the dominant place of bananas.)

Banana exports have appeared in Dominica's Trade Statistics for more than a century but for most of this time it has been an inconspicuous item. In recent years banana has steadily consolidated its position and at present the crop accounts for 70% of the island's exports, value wise.

This is usually the prime consideration when the island's economic potential is being assessed, but what is disturbing is that the present importance of the industry is often taken as a reason for maintaining and perhaps expanding it.

Even when there are misgivings, enough is usually found to be said for the maintenance and expansion of the industry. L. G. Campbell in his study on the Development of Natural Resources of Dominica comments: "It is expected that banana will maintain its prominence in the economy but attention should be given to increasing efficiency of production." Earnest Bartell, who recently compiled the island's National Income Accounts, although more pessimistic about banana's position, still raises the point that "a guaranteed banana price for a determinate contractual period is a unique opportunity for raising island income that deserves to be exploited. The banana is one crop that can be adjusted to meet changes in demand at comparatively low cost." The suggestion is implicit here that, given its perils, a great deal can be said in favour of the industry. The Tripartite Economic Survey Report concludes that "with appropriate assistance¹ in the field, the competitive position of the Banana Industry in Dominica can be improved. With the natural advantages of ecological conditions which work towards a higher proportion of production when prices are most lucrative during the summer months, the industry could continue to play an important part in the economy even though large increases in aggregate production may not be expected, particularly if other developments compete for scarce resources." These all contain statements which are valid, but the direction in which they point is subject to criticism. For instance a guaranteed price does offer certain prospects, but to extend this to mean, as producers and the banana authorities are inclined to, that a guaranteed price justifies emphasis on bananas, is obviously misleading. Again, there is always the possibility of adjustment to meet changes in demand, but this often means cutting down on production and all that it implies — temporary unemployment, dis-saving, underutilization of crop lands and so on.

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Presumably financial as well as technical, but as will be seen later, considerable sums have already been spent, particularly through the various buttress schemes, on the development of the industry.

The Weak Points of the Industry

The banana industry is the most volatile of primary industries. Primary industries are characterized by fluctuating prices, fluctuating yields, excessive competition, seasonal production or demand and, although this is not yet relevant to bananas, susceptibility to being undermined by synthetic substitutes. By their very nature they are least likely to ensure the optimum and continuous use of a developing country's limited resources. Bananas, in particular, suffer the additional weakness of being extremely dependent on the vagaries of nature. Banana production is beset by a host of difficulties which may sometimes combine and develop to proportions which, because of the central position of the industry, constitute a threat to the economic livelihood of the island's 64,000 people. Over the last five years, banana producers have suffered the destruction of at least two severe hurricanes and many more windstorms. In 1963 Hurricane Flora, the centre of which fortuitously missed the island, created winds strong enough to ruin the greater part of that year's crop. In the following year Cleo did similar damage. A few years previously it was Edith and Helena; in 1966 it was Inez. The hurricane hazard is not easily counteracted since the banana plant has short fibrous roots and large leaves and bears relatively heavy fruit.

Hurricane Insurance provides some measure of security to growers, but this is not all benefit since growers pay an insurance levy from profits in the good months.

Table 1. Hurricane Insurance Claims, Dominica

<i>Hurricane</i>	<i>No. of Claims Received</i>	<i>No. of Benefits Paid</i>
Edith	4,449	4,253
Helena	1,046	221
	<hr style="width: 50%; margin: 0 auto;"/> 5,495	<hr style="width: 50%; margin: 0 auto;"/> 4,474

Source : *Dominica Banana Growers' Association Annual Report and Accounts, 1963.*

Note : Total amount paid in benefits for both 'windstorms' was \$845,783. The amount of \$845,783 is another deduction to be made from the gross revenue of the industry in arriving at a figure which represents a fair profit for the year in which the hurricanes occurred. The average farmer may not feel the inadequacy of the compensation funds. To him it represents cash in hand and he does

not consider that this cash is to be reinvested in the following season crop, unless he resorts to borrowing.

Unfavourable Demand Conditions

Despite the severity of the physical hazards, from which the producer may in fact be free in some years, they are not the most serious problem facing the industry. Other developing countries far larger than Dominica are entering the world markets for the product with the initial advantage of being lower-cost producers² and larger suppliers.

No less than fifty countries now produce bananas for export.³ These include places like the Cameroons, Guinea, Somalia, Nigeria and the Ivory Coast in Africa, Costa Rica, Brazil, Honduras, Panama, Guatemala, Ecuador and Colombia in South and Central America, Cuba, Jamaica, Martinique and the Windwards in the Caribbean, Lebanon and Taiwan in the East. The significance of this distribution is, to my mind, that the demand which Dominica can anticipate for its produce will be restricted by geographical and political factors, such as, in the first case, the difficulties of transhipment and the proximity of external markets, and in the second case, the awarding of quotas within politically associated or aligned groupings, the erection of high tariff barriers or outright embargoes.⁴ The larger land areas and populations of other producing countries favour production on a scale far greater than can be achieved by Dominica, and even though demand for the fruit were elastic, it would merely induce the expansion of the industry in the countries where banana is not even among the principal products.

There is no dependable statistical data on the elasticity of demand for bananas, but something can be said on this. Today, Dominica bananas are sold as a 'luxury' item, exclusively on the British Market, and the demand is decidedly seasonal, falling off sharply in the winter months. On the other hand the level of production is maintained throughout the year.

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See: Beckford, G. & Brown, H.: "A preliminary Appraisal of the Scope for Rationalization of the West Indian Banana Industry," **Proceedings of the First West Indies Agricultural Economics Conference**, Dept. of Agric. Econ. & Farm Management, U.W.I., Trinidad, W.I., 1967

3

See FAO Trade Yearbook 1964

4

With the present tendency towards trade groupings, particular restrictions are likely to increase in significance.

In the winter months, therefore, producers are left with an unsaleable surplus and in the summer months what now seems to be a chronic overproduction induces a significant drop in prices. If the industry faced even a moderately elastic demand this 'vicious circle' would, it seems reasonable to argue, have been long torn asunder. In any event for more to be sold, prices would have to be kept unprofitably low. (Appendix Table II shows the trend in banana production and exports.)

Fluctuating Prices

I have tried to show that demand for bananas is not only seasonal but quite inelastic. Linked with this is a tendency for prices to fluctuate violently. Fluctuations in price are a function of the pressure of supply. West Indian producers enjoy a protected market in the United Kingdom, and are, theoretically, allowed to sell all they can produce. But unless this concession were backed by some price control measure (inadvisable under the conditions of elasticity), it can be no help to the producer when the market is oversupplied. In the winter the producer can only equalize his returns and his outlay by cutting down on production (and leaving valuable lands fallow). However, Jamaica and the Windwards, the two largest producers for the British market, produce independently and have market contracts with independent and competitive firms, so it is not easy to co-ordinate and regulate supplies. Besides, it is virtually impossible to get producers to agree to a restricted quota of shipments in an island where bananas are the main product, the main source of revenue, even if the argument is put to them that it is for their own good. Consequently, production goes unchecked and with demand conditions given above, this leads to fluctuating prices which sometimes touch the ridiculous nadir of 3 cents per pound.

Use of Resources

I remarked earlier that a country must strive to make the optimum use of its resources. In the case of Dominica land and labour are the prime resources, although Dominica boasts a comparatively favourable land/population ratio — being at the other end of the scale from Barbados in this region — a substantial proportion of the island's cultivable lands are intractable without mechanical aids (liquid capital in the first instance, which is scarce). The availability of land is really a spurious argument on which to hinge a case of banana production. Dominica does not possess such an abundance of landspace that it can indulge in the 'conspicuous consumption' of land. A soil capability survey is still wanting but the hard experiences of some over-enthusiastic growers have shown that the banana will not "take root" everywhere, not even on an island noted for its fertility. Attempts *are* made to produce bananas everywhere, on the

meagerest topsoil, on the sheerest mountain slopes where constant water erosion takes its toll. So much of the accessible croplands having been taken up, that the land-seekers turn to the most sub-marginal areas in the hope of jumping into the banana bandwagon.

Dr. David T. Edwards⁵ provides us with the knowledge that out of a total area of cropland of 41,600 acres Dominica had, up to 1958, invested 10,000 acres in banana cultivation. It is estimated that the comparative figure for 1966 is 13,000 acres. In 1958 and 1966 banana production was valued at \$2,596,482 and \$5,900,000 respectively. Thus there was over the period a 50% increase in acreage under production and, a 55% increase in production. This suggests two things: a more intensive use of land under cultivation and the use of improved techniques. Both of these are in fact responsible. Leaf Spot and other banana diseases have been reduced significantly and through the increased activity of the Windward Islands Banana Research Unit, agronomic methods have improved all round. However, the figures conceal some of the facts. Banana cultivation is heavily subsidized. The main component of "improved techniques" is the more widespread and scientific application of fertilizer of which free and generous credit disbursements are made in certain years.

Two thousand and thirty-four tons of the total for 1963 were distributed free and 2,303 tons were sold; in 1964, 4,335 tons were distributed free and 2,745 tons were sold. When fertilizer is obtained by the grower on credit terms the installments are to be met from his profits; when it is distributed "free" to the grower it is met from the Association funds or with Government assistance. Of course, it is realized that production involves investment and fertilizer application must be seen as a form of investment, but the volume of expenditure on this particular investment is not justified by the increases in productivity and the returns to the growers.

The totals paid to growers (see Appendix Table III), low as they are, are deceptively high. Bananas are grown on some of the most fertile and accessible estate lands of the territory. A clearer perspective is obtained by considering that \$5,900,000 (gross) is the produce of 13,000 acres of much of the country's best lands. The gross figure would be reduced substantially if the small producers attached a valuation to their labour, comparative to what they would obtain by hiring out their services. The question of opportunity cost is of extreme importance. In

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D. T. Edwards: *Some Statistical Tables of West Indian Agriculture, U.W.I., 1962*

Dominica labour costs of own-account farmers are an unconsidered residual. The small producer quite overlooks his separate items of investment : land, capital, enterprise and labour. If we were to assign adequate distributive shares to the man who contains within himself two factors of production we would realize that a ton of bananas sold at \$200-\$300 (W.I.) gives a very poor return.

A Brief Comparison

Coffee, cocoa, citrus and coconuts (all 'Tree Crops') shared among them 13,000 acres in 1958 (some of these have been surrendered to bananas since). As primary commodities they are confronted with more or less the same conditions as bananas. There are differences, however, such as their ability to withstand the natural hazards, the possibility of reaching the consumer in a multiple of forms (they are universally required, being an important base in so many industries, for instance, confectionery). In addition they are far less perishable even in the raw state than bananas. The higher capacity for storage means that the producer has a great measure of influence over prices, being able to withhold stocks when the market is over-supplied and sell when prices are good.

In spite of the possibilities of diversification⁶, the economy through the expansion of the Banana Industry, has become geared to the production of bananas. A host of small farmers⁷ are straining their capital and skills with a view to making a quick turnover through bananas. The public sector is caught in the vortex. When a crop accounts for 70% of a country's exports, public programmes for development must take cognizance of this. In other places, when a single industry means so much, Government can expect a reasonable proportion of its development funds to be provided by the industry either through taxation or export duties, or by sale of Government bonds, or what have you. In Dominica's case the boot has always been on the other foot and there is no indication of a change in the trend.

There are three schemes acting as pillars of the Banana Industry : The Fertilizer Credit Scheme, the Price-Adjustment Scheme and the Banana Insurance Scheme. These are constantly crumbling and in need of repair. A word must be said about them.

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This paper is concerned with the Banana Industry. The question of diversification is a wide one which must be explored separately. What has been given is no more than a hint of the possibilities.

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The small farmer is the 'cornerstone' of the Dominica Banana Industry. In 1958 there were 7,460 banana-producing farms under 10 acres in the island.

The Fertilizer Scheme

The fertilizer scheme currently in operation was launched in March 1963 with a \$200,000 loan from the Price Adjustment Scheme. About 75% of this amount was released up to the end of 1964. As a result of fluctuations in prices which were to be evened out from the funds of the "parent" scheme it became impossible to release the balance of the loan to growers in need of fertilizer, many of whom could not in any event meet the stringent credit terms. The scheme has been operating, therefore, with a reduced capital and new credit issues are determined by the level of repayments.

The scheme provides for loans up to a maximum of \$500 to be repaid in one year with no possibility of renewal until full 75% of an outstanding loan is paid in. At present much difficulty is experienced in maintaining the scheme, the principal limitation of which is the shortage of funds. In spite of this, the authorities have decided, in an attempt to boost productivity, in favour of waiving the down payment clause.

Recently a new scheme was proposed, the main features of which are given as the introduction of a system of deferred repayment and the determination of the extent of credit to be given to the grower on the basis of the total requirements of his cultivation. Allocations are to be made at a prescribed rate of one ton of fertilizer per acre per annum and are to be made on the basis of a qualifying certificate. Limits for credit and time limits for repayment are specified. The scheme, as designed, does incorporate more attractive features than the one it is intended to supplant, but its introduction has been delayed because of the lack of funds. Nor is there any immediate prospect of the estimated initial requirement of \$832,500 being provided from the island's C.D. & W. allocation which is the source suggested by the scheme memorandum.

The proposed scheme testifies to a genuine desire on the part of the authorities to increase banana productivity which is far lower in Dominica than in other competitive banana producing countries and it reflects, by the doggedness with which it is being pursued, the rather general belief that increased productivity is the answer to the problems of the industry and, by implication, to the island's economic situation.

The Price Adjustment Scheme

This scheme, prompted by the tendency for greenboat prices to undergo wild fluctuations, came into being in 1955, as a result of negotiations between the U. K. government, Jamaica and the

Windwards. A price stabilization fund was established by the scheme into which banana producers were to pay when the price was high and from which they were compensated when prices dropped below a 'mean' price of £64.10s. 0d. If claims exceeded the amount in the fund the deficit was to be met by the British Government. Jamaica withdrew from the scheme in 1961, on the grounds, mainly that the islands and Van Geest were drawing on the funds for purposes for which they were not intended i.e. fertilizer credit. From 1961 the scheme was continued on a new basis. Contributions were to be made by the four governments at a specified rate when the aggregate level of the Fund fell below £50,000. The Dominica Government was to contribute to the local fund when it dropped to £21,172. The British Government undertook to meet the major part of each government's contribution to the fund up to a £250,000 limit, Dominica's share of which is just over £75,000. This figure is the maximum provided under the scheme by the British Government for price-support withdrawals.

Each passing year has shown the inadequacy of the Fund. There are several price-levels during each year. During the year 1964-65, for instance, prices fluctuated from a summer peak of 5.5 cents per pound to 2.6 cents, from 4.5 cents to 1.6 cents. As the WINBAN Report for that year observed: "When one considers that some of the islands were in no position to support such low winter prices, it will all the more be realized that the outcome of the Price Adjustment Scheme talks in London (1965) was most unsatisfactory." This condemnation could not have been made by a more qualified authority. The future of the scheme is uncertain.

The Banana Insurance Scheme

This scheme is the only one with some measure of statutory backing and for this reason it may be seen as the most protective. Banana Insurance in Dominica started in 1960, as part of a wider WINBAN insurance scheme. A fund was also set up in this case, by the Windward Islands Banana Insurance Ordinance (Dominica) of 1960, which consists of a cess paid by every grower as well as contributions made by Geest, money borrowed under the Ordinance, interest payments, etc. The cess is collected by the local association and paid over to the parent body. Statutory benefits up to an amount of \$240,000 are paid from the Fund to insured growers in respect of their registered holdings damage by windstorms, after the requisite inspection and (where there is disagreement) review of assessment by the appropriate tribunal. Beyond this amount underwriters pay claims up to a limit of approximately \$2m.

There is no doubt that the frequency and severity of windstorms were underestimated by these arrangements. The underwriters suffer most. Claims on them have exceeded premiums by over £600,000. It is likely that WINBAN will experience ever increasing difficulty in securing the participation of underwriters in such a patently unprofitable deal. To persuade them to continue undertaking the risk, premiums would have to be increased to an amount which the grower would not be able to bear without severe hardship. Efforts are now being made to tighten up the loopholes of the scheme.

These buttress schemes confirmed the complete dependence of the banana industry on a recurrent subsidy, more fitting to a 'pioneer' industry than one so long established. The schemes are designed to offer a guarantee against what are clearly intrinsic weaknesses of the industry and they can be viewed as artificial devices to maintain in existence an industry which is manifestly incapable of generating its own life blood. They are constantly being reviewed, each review demonstrating more clearly the financial strain involved in satisfying banana's demands. The British Government, the Dominica Government, and the underwriters together with the growers themselves provide most of the finance for running the three schemes. The growers are undoubtedly beginning to feel the pinch. In discussing scheme finances the D.B.G.A. remarks that "it has not been easy to explain to the small grower the need for a mark-up of the regular fertilizer price to meet servicing costs. He finds the present service charge of 45c. per 112 lb. bag of fertilizers exceedingly burdensome when added to the comparatively high cost of the concentrated mixtures recommended by Winban Research for use under local conditions." Even though it is justifiable to make banana growers bear part of the burden of production, it is unreasonable to expect the subsidy from other sources to be provided indefinitely.

An Explanation of Banana's Stronghold

The question inevitably arises, what, in view of the foregoing observations, has led to and maintained the ascendancy of the Banana Industry on the island? The explanation is to be found in a combination of factors which we will now explore briefly.

The Banana Industry of Dominica as we know it today really came into being in 1952 through the enterprise of Dutch brothers by the name of Van Geest, two sound businessmen, whose original interest lay in other fruit and bulbs. Attracted by the success of their predecessors in the business, Elders and Fyffes, who had already established themselves in a monopolistic

position in the Banana Industry of Jamaica, the Van Geest brothers decided to enter the trade under an exclusive contract with the Windwards to purchase all available bananas produced in these islands. For the unsteady economies of the islands this offered a singular opportunity for the development of an industry which required no far-going structural changes. There was the guarantee of a steady flow of exports; the system of payment, highly regularized and efficient, fitted in well with the needs of island farmers and the short maturation period of the crop confirmed the wisdom of extensive banana production, (to the virtual exclusion of all else) in the minds of large numbers of small farmers.

From 1952 the Banana Industry grew rapidly. In the first year an estimated million stems were purchased by the company from the four islands. In 1966 3½ million stems were exported from Dominica alone. However, the volume of exports is not the essential thing. The effects of the industry have penetrated all sectors of the economy. The government programme of distribution of Crown Lands gave an additional boost to the industry by the creation of a middle-class part-time farmer who understands little else about agriculture but the production of bananas.

The purchasing company offered a package deal which has put him in good stead. In Dominica the company is so woven into the structure of the industry that little distinction is made between Geest (a private company in business for profit) and the Banana Growers' Association, a semi-governmental organization representing the growers' interest. Consequently, the Association views the protection of Geest's interests as the protection of its own.

Today conditions facing the industry have altered radically but its position has been strengthened. One would wish that bananas could be seen as a transitional crop. This unfortunately is not the dominant view, understandably, since the great majority of producers do not really understand the implications of the industry which bear so hard on them. Small farmers are not to be expected to change their crops and agricultural norms unless they can visualize definite prospects of a far wider margin of profit and self-sufficiency arising from the change. On the other hand, Dominica farmers have demonstrated a willingness to change when conditions are ripe. As long as the marketing arrangements for other crops remain comparatively rudimentary, banana's position will be maintained.

Conclusion

The question can legitimately be asked how practical it is, in view of what are called the 'structural rigidities' of developing economies, for Dominica to relax its dependence on bananas at the present stage of development. Indeed, one way of initiating the growth process is by concentrating limited resources on a particular industry with good short-term prospects with a view to spreading out in other directions when once a certain level of income and capital has been generated. But the economy has been tied to bananas for a long enough time for the industry to have made the desired initial impact. If it has not succeeded in doing this, then it was not the logical choice. If the impact has been made, then it has served its purpose.

APPENDIX TABLE I

Principal Exports, Dominica, 1958 - 63

(W. I. \$'000)

Commodities/Year	1958	1959	1960	1961	1962	1963
Bananas, fresh	3718.3	4520.7	4125.5	4783.9	4875.1	5417.1
Fruit juices	1183.2	627.1	616.1	891.0	1182.7	720.3
Essential oils	652.2	312.9	365.5	614.9	481.8	517.9
Copra	295.4	307.4	436.5	492.7	430.5	506.4
Fresh Citrus fruits	119.6	174.6	181.5	228.8	272.0	164.1
Cocoa, raw	205.2	170.1	140.2	82.4	137.8	193.2
Vanilla	153.5	155.6	42.3	14.2	1.6	12.5
Fruit preserves	199.6	86.9	57.0	3.1	17.4	6.4
Vegetable mats	51.6	57.3	54.9	53.6	46.0	50.4
All other products	123.8	157.5	106.2	103.7	125.6	164.4
TOTAL DOMESTIC EXPORTS	6702.3	6570.1	6126.2	7268.3	7570.5	7752.7

Source : *Dominica Annual Statistical Digest No. 2*

APPENDIX TABLE II

World Production and Export of Bananas

(Million Metric Tons)

	Prewar (average)	1948-52 (average)	1953-57 (average)	1958-62 (average)	1958	1959	1960	1961	1962	1963
Production	8.1	13.7	15.7	18.7	16.8	18.3	19.1	19.5	19.8	29.4
Export	2.48	2.34	3.04	3.79	3.53	3.67	3.88	3.98	3.87	4.02

APPENDIX TABLE III
Banana Production and Value, Dominica, 1958-64

Year	Total Stems	Tons	Total Paid to Growers	Average Price per lb. (cents)
1958	1,689,432	20,316	\$2,596,482	5.70
1959	2,235,330	27,880	3,202,898	5.13
1960	2,440,296	28,415	3,014,842	4.78
1962	2,393,928	28,239	2,982,544	4.72
1961	2,399,326	28,756	3,288,561	5.11
1963	2,446,970	30,738	3,328,293	4.83
1964	3,474,056	42,232	4,956,875	5.24

Source : *Dominica Banana Growers' Association Annual Report.*

APPENDIX TABLE IV
Fertilizer Consumption, Dominica, 1961-65

Year	1961	1962	1963	1964	1965
Fertilizer Consumption (tons)	1,814	2,351	4,337	6,080	3,999
Value (\$ W. I.)	626,700	656,900	599,900	1,515,600	

Source : *Draft Memorandum of Proposed Fertilizer Credit Scheme.*