APPLICATION OF THE BANANA INSURANCE FUND FOR AUTHORIZATION

1.0 INTRODUCTION

The Banana Board, operator of the Banana Insurance Fund has applied for authorization to continue practices that are perceived to be anti competitive and as such are in breach of the Fair Competition Act (FCA). Section 29 of the Act makes provision for the Commission to authorize, upon application, activities that are otherwise illegal under the Act. Such authorizations are granted subject to the Commission's satisfaction that the activities in question are likely to promote the public interest.

The Banana Insurance Act of October 24, 1 946, makes it mandatory for all banana exporters to be provided with insurance under the Banana Insurance Fund[1], a scheme operated by the Banana Board. Premiums for this insurance are collected at source by way of a cess, currently fourteen (14) cents levied on each pound of fruit exported within a year. The rates of cess and indemnity, (that is the amount to be paid out per acre in the event of a disaster) are set by the Minister of Agriculture annually.

Given that the requirement for compulsory insurance is in breach of the FCA the staff of the Commission has undertaken an investigation into the operation of the Fund, taking into consideration the following issues:

(i) the need for insurance coverage for bananas;
(ii) the cost of insurance under the Fund compared with possible alternatives;
(iii) the effect on efficiency in the banana industry, of the existence of the Fund and the requirement for compulsory insurance; and
(iv) whether the existence of the Fund inures to the benefit of the local banana industry and by extension the Jamaican economy.

2.0 GENERAL INFORMATION

2.1 THE BANANA INDUSTRY

According to available data there are some 1 3,500 acres of export banana currently under cultivation in Jamaica. All of Jamaica's export banana is sold in the United Kingdom's market under a preferential arrangement that allows duty free access to a quota of 105,000 tonnes per year. The country exported 89,700 tonnes of bananas valued at US$44.1 million in 1996. This represented 85.4% of the existing quota.

The Banana Board estimates that some 22,000 persons are employed by farms not owned by Jamaica Producers Group (JPG). An additional 4,000 person is reported to be in the employment of JPG. Hence, total employment for the industry is estimated to be 26,000 persons across the island.

The main areas in which bananas are cultivated are, St. Mary, Portland, St. Thomas, St. Catherine, Clarendon, Manchester, St. James, St. Ann and Westmoreland. The last three parishes comprise farms that are part of the Westban group. Approximately 75% of the banana produced for exports is grown on the three large estates, [Eastern Banana Estates Limited (EBEL), Victoria Banana Estates (VBE) and St. Mary Banana Estates (SMBE)].

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[1] *See the Banana Insurance Act, Part 11, Section 3(1).*

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These farms, represent 4,438 acres of banana lands and are all controlled by (JPG). The other 25% of export fruit are grown on a number of large, medium and small size farms broken down as set out below[2]:

SIZE	NO. OF FARMS	TOTAL ACREAGE
100 acres and over (large)	14	3,227
30 - 100 (medium)	31	1,495
Below 30 Acres (small)	1 ,434	3,804
TOTAL	1,479	8,256

Indications are that farming practices and efficiency vary significantly among farms. JPG for example is reported to be recording average fruit yield of 14.7 tonne per acre while the average for the other 25% of farms is reported to be 3.7 tonne per acre.

The industry is governed by the provisions of the Banana Board Act of 1 953. The Act confers on the Banana Board the exclusive right to export bananas. The Board has in turn transferred its exclusive right to export bananas to an entity called Banana Export Company Limited (BECO), under terms set out in a ten-year licence agreement effective January 1991.

2.2 THE BANANA INSURANCE FUND

Under the insurance scheme, the first 25% of damage is borne by the farmer.[3] The remaining 75% of insurance risk is shared between the Fund and its overseas reinsurer. Payment for claims is made to farmers on the basis of their calculated statutory acreage, a statutory acres being equal to the amount of fruit exported in pounds calculated on a per acre basis.

2.3 PERFORMANCE OF THE FUND

Over the ten-year period 1985 to 1994 the Fund collected some J$86.5 million in premium income, paid out J$47.8 million to reinsurers, settled claims valued at J$50 million and accumulated reserves to the end of 1994 of J$22.8 million (appendix 2, table 1 and 2)[4].

With the exception of one year (1988, the year of hurricane Gilbert) all claims were met from the Fund reserves as total claims for each year did not exceed the excess level. Claims have been increasing faster than cess collections over the last few years resulting in operating deficits in 1 993 and 1 994 and a reduction in the funds reserves from J$30.4 million at the end of 1992 to J$22.8 million at the end of 1994. The fund has also become more reliant on cess collection as a source of income over the period.

2.4 PRODUCT AND GEOGRAPHIC MARKETS

For purposes of anti trust analysis, markets are defined in both products and geographical terms. The product market represents the range of products or services that may be considered substitutes

[2] *Data supplied by the Banana Board.*

[3] *This compare unfavorable with deductible of 5-10% quoted for other types of general insurance coverage but is in line with the figure quoted for overseas insurance companies that offer coverage for agricultural crops such as bananas.*

[4] *The short fall between premiums collected and payment of premiums amid settlement of insurance claims was met from investment income and draw down on reserves in some years.*

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whereas the geographic market represents the physical area over which the products or services are exchanged.

2.5 (1) The Product Market

The product in question comprises general insurance coverage against windstorm damages to bananas cultivated for export. In theory, such coverage may be offered by the Banana Insurance Fund, any local company licensed to provide general insurance coverage or overseas insurance companies, registering with the Superintendent of Insurance and selling directly to growers, operating in consort with local partners or selling through local brokers.

In practice however, the Banana Insurance Fund has a statutory advantage in providing coverage on bananas grown for export. This is so because all bananas grown for export is automatically provided with coverage under the Banana insurance Scheme. The premium for such coverage is deducted prior to farmers receiving their payment for exported fruits.

The upshot of this is that the segment of the market in which other providers may provide general insurance on banana cultivation is really that for windstorm insurance coverage over and above the coverage provided by the fund and that comprising coverage for other forms of crop risks such as, insurance against disease, fire, floods and other perils. No local companies currently provides such coverage but indications are that coverage may be obtained from a number of overseas companies including, Lloyds, Eagle Star, Gerenahi and Sorema.

2.4 (2) THE GEOGRAPHIC MARKET

The relevant geographical market in question is that for providing insurance to export Banana growers within the boundaries of Jamaica. Save for the requirement for mandatory insurance under the Banana Insurance Fund, the market for purchasing such insurance extends beyond the boundaries of Jamaica to the international insurance market.

Furthermore the practice whereby local insurers including the Banana Insurance Fund contracts for significant reinsurance coverage from overseas providers, means that prices in the international market impact significantly on the cost of insurance locally. Additionally it is understood that the practice among international insurance providers is to classify risk according to regions. In this context Caribbean countries which all face high risk from windstorm and hurricane damage would be treated as one region.

3.0 FINDINGS

3.1 NEED FOR INSURANCE

The banana plant is highly susceptible to windstorm damage. It is estimated by players in the industry that hurricane damages leading to a total wipe out of the industry occurs on average every ten year. At the same time, there is significant windstorm damage each year. This is supported by the records of the Insurance Fund which indicate that for the twenty year period up to 1995 annual claims for windstorm damage averaged 42% of the value of crops. Given the crop's high susceptibility to such damages and the exposure of Jamaica to frequent bouts of high winds, some form of crop insurance is deemed to be prudent.

A number of banana farmers interviewed agreed that insurance coverage is critical to assist the resuscitation of farms in the wake of a disaster, as invariably banana farmers are unable to come up with the large outlay of funds usually required to effect rehabilitation of farms.

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Growers interviewed during the course of the staff's investigation, reported that even with the coverage provided by the Banana Insurance Fund a significant overseas loan had to be sought to assist the industry's recovery from the effects of hurricane Gilbert.

It may also be argued that given that the industry operates under a quota system rapid recovery from the effects of disaster is imperative, as it is necessary to maintain consistent export levels to justify the quota. In any event, even in competitive markets prolonged periods of absence invariably leads to an erosion of market share.

Additionally, checks with the agricultural department of two of the country's leading commercial banks [Bank of Nova Scotia (BNS) and National Commercial Bank (NCB)I have confirmed that often insurance coverage is a condition for issuing loans and that farmers are responsible for securing such coverage. This means that for farmers wishing to obtain loans, self-insurance may not be an option.

3.2 AVAILABILITY AND COST OF ALTERNATIVE INSURANCE COVERAGE

The result of a survey among insurance companies and brokers indicates that there are no local companies offering coverage on banana cultivation. Reasons cited for this include:

a. the high risk associated with the produce;
b. a general lack of expertise in the underwriting of agricultural risk; and
a. the exclusion of agricultural crop insurance from most of the reinsurance treaty arrangements with overseas providers.

Coverage for such crops may however be obtained from overseas insurers through local brokers. Quoted rates obtained for such coverage varied from 1 2.5% to 1 5% of the total value of the crop with deductible of 25 - 30% depending on, farm size. This is substantially higher than the cost of insurance under the banana insurance fund which at 14 cents per pound in 1995 represents just under 2% of the over eight dollar per pound, paid for export banana during that year.

Brokers canvassed were reticent to give specific conditions and situations in which overseas coverage could be obtained. The following general comments were supplied:

a. The cost of insuring banana is substantially higher than that for other forms of general insurance risks because of the crop's high susceptibility to wind storm damage.

b. Cost and availability of insurance is directly related to the size of farms, the farming practice employed, the terrain and the dispersion of fields. Coverage of farms would only be provided in instances where a group scheme which brings together a number of farmers is already in place or where farms are large enough to justify the appointment of their own surveyors, risk managers and other administrative functionaries.

c. One broker indicated that its canvass of overseas reinsurers indicated that anything below a minimum annual premium of US$20,000 would be uneconomic.

d. Two approaches to determining the cost of insurance on the open market have been cited by brokers. The first, simply calculates the cost of insurance as a percentage of the value of the crop. The other employs the formula, Return Period for Hurricane (Pure Rate)+Administrative Charges + profit. Return period for hurricane represents the calculated frequency with which claims are expected to be made resulting from hurricane damage.

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According to figures submitted by the JPG, insurance from the Banana Insurance Fund accounted for only 39% of its total expenditure on insurance premiums for 1996.

The other 61 % of premium payment reflects payments to overseas insurers for additional coverage[5]. Dr. Marshall Hall indicated that the company's track record, the size of its farms and its farming practices assures coverage by international insurers.

There is a similar insurance fund to that operated by the Banana Board in the Eastern Caribbean (Windward Island Crop Insurance (1988) Limited). Similar to the Jamaican Fund, the Windward Island's Fund also requires compulsory insurance for all exports of bananas. Available data for 1993 indicated that the charge per pound of banana was equivalent of Jamaican 25 cents per pound of fruits as compared with Jamaican 12.1 cents per pound charged by the Jamaican Fund during that year.

3.3 EFFECT OF EXISTENCE OF FUND ON INDUSTRY'S PARTICIPANTS

JPG has advised that the cost of insuring with the Banana Insurance Fund is higher than its cost of obtaining additional crop insurance and that its overall cost of insurance would be lower if it did not have to purchase from the fund.

In support of this contention the company submitted the following comparative statistics for insurance for its three farms (St Mary Banana Estates Limited (SMBE),Victoria Banana Estates (VBE) and Eastern Banana Estate Limited(EBEL)) from the Banana Insurance Fund and on the open market for the year 1996:

	COST OF INSURANCE			
	EBEL	VBE	SMBE	TOTAL
Banana Insurance Fund	8.90	3.20	7.80	19.9
Insurance on the open Market	15.10	5.25	10.38	30.73
TOTAL	24.00	8.45	18.18	50.63
	MAXIMUM BENEFIT - J$M			
Banana Insurance Fund	5073	18.24	44.7	113.67
Insurance on the open Market	234.10	81.50	169.2	484.80
	MAXIMUM BENEFIT TO COST OF INSURANCE RATIO - J$M			
	5.7	5.7	5.7	5.7
	15.5	15.5	16.3	15.8

The above figures indicate that the cost of insurance on the open market versus the pay out in the event of a total disaster (15.8) is just about three times that of the comparable ratio for insurance under the fund (5.7). The company claims insurance premiums represents 4% of its overall cost of production.

[5] *Prcsumablv, this figure includes not only the additional amount paid for windstorm crop coverage hut also officer forms of insurance such as that for machinery and buildings.*

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This compares with the 1 .5% cited by the All Island Banana Growers Association (AIBGA) as the average cost of insurance with the fund, as a percentage of total production cost for its members.

Those large and medium size farmers interviewed[6] indicated that the fund provides them with insurance at a lower cost than they would have been able to secure from international insurers and is critical to their recovery in the event of a wind storm.

Some reservations were expressed concerning the actual operation of the fund but the consensus is that the fund is useful to their existence. Similar views were expressed by the representatives of Western Banana Development Company Limited (WESTBAN) which represents some 630 banana farmers operating in the western section of the island and by the AIBGA.

4.0 COMMENTS

The cultivation of banana for exports carries with it a significant risk from windstorm damage. Currently, that risk is mitigated by way of compulsory insurance under the Banana Insurance Fund. Presumably, in the absence of this compulsory insurance requirement the other possible options would be:

a. Self insurance;
b. voluntary coverage under the fund;
c. Insurance from local companies; and
d. Insurance from overseas providers;

4.1 SELF INSURANCE

Given the need for effecting quick recovery from disasters and thereby maintaining consistent export levels, self-insurance is unattractive. Equally, the substantial capital investment by the larger operators would no doubt discourage self-insurance. Furthermore, the insistence of financial institutions on insurance coverage as part of the requirement for loans would make this unlikely.

4.2 VOLUNTARY COVERAGE UNDER THE BANANA INSURANCE FUND

The operators of the Banana Insurance Fund and other banana interest groups (notably the AIBGA and some large and medium size farmers) have expressed the view that the fund would in all probability not be viable without compulsory participation.

A number of arguments have been put forward in support of this conclusion. Chief among these is the assumption that without compulsory insurance JPG would cease participating and that this would deprive the fund of 75% of its premium revenue. The fund claims that at current charges, insurance of a tonnage less than 78,000 would clearly not be viable with the other farms producing only 23-25,000 tonnes of current output, the operators of Fund are of the view that the Fund will close if JPG withdraws.

The operators of the Fund also argues that the compulsory requirement protects the fund from the uncertainty and instability that would exist if farmers were to be able to opt out at will. The argument here is that even if the fund could survive without JPG's participation the remaining parties and the overseas reinsurers would need some guarantee of stability to ensure their continued participation.

4.3 LOCAL COVERAGE

[6] *These include: EN. Jones Estates Limited, Glaston Potato Growers Limited, Green Gastle Estates Limited and Turners Farms Limited.*

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No coverage for bananas is currently provided by local companies. Both Dyoll Insurance Company and International Insurance Brokers Limited, local companies that have in the past attempted to organize insurance for agricultural crops indicated that they did not find this to be economically viable. This was due to the nature of the risk involved and the rates that would have to be charged for coverage.

The conclusion arrived at from a survey of local insurance providers is that if such coverage is provided locally the rates would be significantly higher than those currently charged by the fund. It is not inconceivable, however, that if compulsory insurance under the banana insurance fund were to cease local providers may again look at this possibility.

4.4 OVERSEAS COVERAGE

It is possible to obtain coverage from overseas insurers. JPG which accounts for over 75% of the country's total production already sources a significant portion of its coverage from such sources. The company claims (and has adduced figures to support this), that such insurance is cheaper than the compulsory insurance obtained from the Fund.

There are two possible explanations for this. Firstly, the higher volume of insurance and the better farming practices employed by the company's large farms should allow for significant premium discount.

Secondly, the risk occasioned by overseas reinsurers is significant lessened by the fact that in the event of a wind storm first call is on the coverage provided by the Fund. In regard to the latter it is reasonable to assume that the absence of coverage under the fund the charges for such insurance would increase. However, since JPG has indicated its reluctance to continue insuring under the scheme it must have calculated that even with such an increase the overall cost of insurance would still be less if it were to withdraw from the fund.

If the JPG opts for total overseas coverage in the absence of compulsory insurance, there would still be a need for insurance for 25% of farms. Using the minimum US$20,000 quoted by one overseas insurer as a guide it is a fair assumption that the 10% of farms falling within the category thirty acres and less would not qualify for such insurance[7].

The remaining 15% of farms comprises those with acerage of 30-100 acres and those with acerage of 1 00 and over. The latter category would clearly meet the US$20,000 and over criteria and depending on farming practices, terrain and technology being utilized would meet this criteria. In respect of the former grouping some farms clearly meet this criteria and would thus qualify, subject to the considerations already cited. Additionally those not meeting this criteria would probably, depending on geographical spread, be able to forge some link to facilitate collective insurance.

4.5 PUBLIC BENEFIT OF FUND

[7] *This is so because a policy premium of US$20,000 translates to a total crop value of Jamaican $4.66 million assuming that insurance premium is 15% of the value of the crop and that the rate of exchange is Jamaican $35 to one ! IS dollar. With I 996 banana export price of Jamaica $8.50 per pound or $18, 739 per tonne and using the 3. 7 twines per acre yield quoted for farms outside the JPG grouping only farms having an annual crop value equivalent to 67 acres or more could qualify for such insurance. This clearly exclude the 1,434 farms which are said to produce approximately 10% of exports. Additionally, a cooperative approach by such farms is ruled out given the considerations about dispersion and administrative costs mentioned earlier.*

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Arguably, the perceived public benefits of the fund are as follow:

- It provides cheaper insurance than is currently available elsewhere for 25% of farms, at least 10% of which would (in all likelihood) not other wise qualify for insurance.

- The 25% of farms provided with cheaper insurance under the banana insurance fund according to figures supplied by the Banana Board provides employment for approximately 22,000 persons or just about 84.6% of employment in the industry or just about 10% of the 1 996 figure, for total employment in the agricultural sector.
- It may also be argued that by assuring insurance to all banana exporters the Fund helps to ensure that the country gets closer to the quota by preserving marginal exporters. Clearly however, as the country gets closer to meeting its quota and as the threat of the removal of preferential access to the European market increases, such an argument will have less of an appeal.

- By assuming the risk for insurance coverage the Fund saves the country from paying out foreign exchange to overseas reinsurers. Notably however, more than half of the total annual premium provided by the Fund is used to secure reinsurance from abroad.

- That the Fund is able to enjoy economies of scale by insuring all exporters of Bananas and that these gains are passed on to the farmers.

Any perceived benefit from the fund must of course be matched against the extent to which its maintenance, in its current form, inhibits economic efficiency.

4.6 ECONOMIC EFFICIENCY ARGUMENT

Economic efficiency is achieved where resources are utilized in such a way that no one can be made better off without someone else being made worse off[8]. For this to be the case the following conditions must obtain:

- There must be productive efficiency, that is, the output of the economy is being produced at the lowest cost.

- There must be 'allocative' efficiency, that is, the resources of the economy must be directed to produce the goods and services that are required by the society.

- There must be distributional efficiency, that is, output must be distributed in such a way that consumers would not wish, given their disposable income and market prices, to spend such income differently.

The above conditions ideally exist in perfectly competitive markets and serve to maximize consumer welfare. Additionally, it is generally assumed that in a competitive market the pressure of price competition serves as a strong incentive for entrepreneurs to seek and adopt cost saving technological innovations. This is known as innovative efficiency.[9]

As it currently operates the Banana insurance Fund does not meet the above criteria. If the figures submitted by JPG are correct the cheaper insurance coverage provided to 25% of banana farms is done at the expense of higher overall cost of insurance to the remaining 75% of farms (JPG). In this

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[8] *Barnock, Baxter and l)avis, Dictionary of Economics*

[9] *Sec Industrial Market Structure and Economic Performance, Scherer and Ross, pg 20.*

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regard the evidence suggests that the existence of the fund and the requirement for compulsory insurance serve to raise the cost of growing bananas for export above that which would obtain in the absence of such compulsion.

In respect of 'allocative' efficiency, the question to be answered is whether the maintenance of the Banana Insurance Fund in its current form ensures that resources are allocated to their most efficient use. In this regard, it may be argued that the subsidy afforded some growers under the scheme allows for lands and other resources that may have found other more profitable economic use to be kept in banana cultivation.

Furthermore, presently the cost of insurance bears no relationship to individual farmer's claims history as a flat fee is levied on each pound of bananas exported. In this context, growers who exercise better husbandry practices and thus claim less frequently are not rewarded. Additionally, there are no provisions within the present arrangement for volume discount. It would therefore be fair to conclude that while the fund may make a claim to lowering the cost of insurance for some farmers it may actually be acting as a disincentive for such farms to increase their efficiency levels. All of this is counter to the requirement for 'allocative' efficiency.

JPG is on record as indicating that if it would prefer to discontinue purchase of insurance under the Banana Insurance Fund.[10] The presumption here is that the company is convinced that its overall cost of insurance would be lower if it did not have to insure with the Fund. On this count, the Fund fails to meet the distributional efficiency requirement, whereby there is no desire on the part of its customers to spend their income differently.

The other matter to be considered is that of whether or not the requirement for compulsory insurance provides an incentive for, or discourages innovation, especially in respect of the management of the Fund. The compulsory provision in the Banana Insurance Act puts the fund in a monopoly position in respect of a significant portion of the market for insuring export bananas.

Competition provides the best impetus for lowering cost of production and improving service to customers. Very often, it is the pressure of competition that drives innovation. The Banana Insurance Fund, faces no competition in respect of the insurance coverage, that it now provides to farmers. In view of this, it may well be argued that it has no incentive to search for innovative ways of delivering insurance coverage at the best possible price to its members.

5.0 CONCLUSION

Insurance coverage is critical to the smooth operation and the sustenance of the Jamaica export banana industry. The current arrangement for insurance however, does not meet the requirement for economic efficiency. It provides cheaper insurance for twenty five percent of farmers but do so at the expense of higher overall cost of insurance to seventy five percent of production (JPG). The evidence suggests that the existence of the Banana Insurance Fund and the requirement for compulsory insurance serves to increase the cost of growing bananas for export above that which would obtain in the absence of compulsion.

Furthermore, although the removal of the requirement is likely to lead to the demise of the Fund. This will not leave the industry without option for insurance. It is clear that JPG and some of the other large

[10] *Sec letter from Dr. Marshall Hall, Managing Director of JPG, June 19.1997.*

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and medium size farms will be able to work out other Insurance arrangements. In the case of the JPG farms the company claims this will be cheaper insurance. It is not clear however that this is likely to be so for the others. On the other hand, at least ten percent of the current exporters may in the event of a total disaster be removed from the industry.

6.0 RECOMMENDATIONS

1. The Banana Board's request is for authorization of its practice with respect to the operation of the Banana Insurance Scheme. However, there are at least two other instances in which the Board appears to be in breach of the FCA namely:

   (i) The requirement that all Banana destined for export must be sold to BECO.
   (ii) The fact that BECO effectively set the final price paid to farmers. In this context it is recommended that the Commission broaden the issue before it to consider the above situations.[11]

2. The requirement for compulsory participation in the Fund should be abolished given that it raises the cost of producing bananas for export.

Completion Date: August 14, 1997

[11] *An analysis of this situation has also been undertaken by the Economics Department see accompanying paper.*

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