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THE ROLE OF THE COCOA INDUSTRY IN THE ECONOMY OF TRINIDAD AND TOBAGO

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The history of the cocoa industry in Trinidad and Tobago during recent years is a study of continual crises. Judged by the all time low annual export levels over the past five years (5,000 long tons) the industry could well be in its death throes, yet its very survival must give hope for the future and should justify great efforts for its revival.

The Decline - A Brief History

At the turn of the century Trinidad was one of the world's leading cocoa producers, but from a peak production of 30,000 tons in 1921 there was a sharp decline to 3,500 tons in 1945. This decline was originally triggered by low prices in the 1920's resulting from West African competition and followed by the introduction in 1928 of a new disease, Witches' broom (*Marasmius pernicius*), that spread rapidly and reduced yields dramatically. The situation was seriously aggravated by the decline in prices caused by the general depression in the 1930's.

An intensive survey of the Industry was carried out in 1930 in which 40 teams of experienced cocoa growers inspected 16,637 estates. This study¹ is a model for any future survey. It covered 379,000 acres of which 209,000 (55 per cent) were under cocoa. Over the three years 1927-30 the mean annual export was 25,580 tons which represented an average yield of 275 pounds per acre. The 1939-45 war caused a shortage of labour reminiscent of the current crisis and many estates were abandoned or semi-abandoned during this period. Current estimates of the cocoa acreage vary from 66,000 to 100,000 acres, but whichever figure is used the average overall yield per acre today is barely in excess of 150 pounds.

Gilbert's report no doubt served its purpose, for in 1936 the first cocoa subsidy scheme was introduced. In 1938 the Governor appointed a committee to *enquire into the needs of the Cocoa Industry*. The report of this Committee was presented as Trinidad and Tobago Council Paper No.61 of 1940. Obviously relying to a great extent on the data collected by Gilbert and echoing some of his recommendations, the Committee made many far reaching proposals, namely: imposition of a Cess, a Cocoa Subsidy Fund, a Marketing Board, the replanting of 7,500 acres and partial replanting of 18,400 acres over a 10 year period. At this time it was thought that the cocoa acreage was 185,000 of which no more than 100,000 to 125,000 acres were suitable for cocoa, with 12,000 acres in Tobago.

The Cocoa Rehabilitation Scheme

Council Paper No.61 prepared the way in 1945 for the establishment of a Cocoa Rehabilitation Scheme administered under a Government appointed Cocoa Board. Assistance under the scheme provided for free plants, fertiliser subsidy (terminated in 1957), a cash subsidy of \$300 per acre for complete replanting (up to a maximum of 10 per cent of a farmer's total acreage, thereafter at 30 cents per plant), a partial replanting subsidy of 30 cents per plant where 35 per cent or more of the existing

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S.M. Gilbert. *Cocoa Industry of Trinidad*. Government Printery, Port of Spain, 1931.

pickets was planted. Assistance was subject to certain conditions, for example, approved permanent shade trees, specific spacing, adequate ground shade, supplying up to the third year after planting.

There is little doubt that initially, the Scheme made a real impact and the average annual export between 1952-57 was 25 per cent higher than for the period 1947-51. Unfortunately, around 1957 the Industry received a double blow, from another new disease, cocoa wilt (*Ceratocystis fimbriata*) and a period, 1958-64, whose dry seasons were of unequalled severity. The equivalent of one year's rain was lost during this period. Losses from cocoa wilt, drought and fires ran to tens of thousand of trees. Exports inevitably declined, at a time when the rehabilitation scheme was being poorly implemented and when it needed revising.

The *apparently* poor results led in 1961 to the appointment of the Ferrer Committee, the terms of reference of which were:

- (a) to evaluate the impact on the Cocoa Industry of the present Cocoa Subsidy Scheme as administered by the Cocoa Board;
- (b) to advise whether continued assistance is desirable or necessary; and
- (c) to determine the form in and basis on which further assistance might be given.

In their report¹ there was strong criticism of the administration and supervision of the Scheme and it was estimated that only approximately 20 per cent of the 10.6m. free plants issued would give the performance expected of them. Between 1942-61 a total of \$22m. was spent on the Scheme, of which 20 per cent was spent on cash subsidies, 44 per cent on the maintenance and operation of the Board's propagating stations, 10 per cent on personal emoluments and 4 per cent on research. In 1961 with 9,934 participants the scheme cost \$1.6m. of which 21 per cent came from the cocoa cess and 4 per cent from the sale of seed. This figure was approximately \$120 per participant and in spite of the critical comments of the Ferrer Committee, it undoubtedly represented better value than the millions spent in recent years on the *special projects*.

Up to 1961 the 10.6m. plants distributed theoretically represented 15,709 acres completely replanted and 27,100 acres partially replanted. It was recognised quite early by the Board that partial replanting was a failure, because it was impossible to supervise. Unfortunately, it was never abandoned as it was preferred by the small farmer since it was cheaper. At its peak, production reached 1.5m. plants per year which at traditional spacing, 12 feet x 12 feet, is equivalent to 5,000 acres.

In spite of their strictures, the Ferrer Committee indicated that the impact of the Scheme was

- (a) keeping the growers in business and attached to the land;
- (b) enabling an expansion in acreage under citrus, coffee, coconuts, fruit, and pasture; and
- (c) augmenting the supply of the food crops from the ground shade in young cocoa.

The major criticisms cited were

- (a) their regular evaluation of results;
- (b) the negligible amount of extension work done;
- (c) the unsuitability of soils;
- (d) the lack of managerial talent in the industry;
- (e) the neglect by farmers; and
- (f) the limiting of the replanting subsidy to 10 per cent of the farmers' acreage. All these limited the effectiveness of the Scheme.

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V.O. Ferrer et al. *Report of the Committee on the Evaluation of the Cocoa Subsidy Scheme of Trinidad & Tobago*. (Duplicated Report.) Ministry of Agriculture, Lands & Fisheries, Trinidad, 1962.

Nevertheless, the Ferrer report recommended the Scheme should be continued because:

- (a) cocoa was the second most important crop, the third largest foreign exchange earner, and a most important employer of labour especially in rural areas;
- (b) Trinidad flavour cocoa enjoyed a premium;
- (c) there was continuous research and new varieties were available;
- (d) there was a large area of suitable cocoa soils and no suitable alternative crop available; and,
- (e) important food production was associated with cocoa planting.

The Committee spelt out the most important factors affecting the future prosperity of the industry, namely: Wages, World Prices, Yield Per Acre. It was convinced that the country had the three ingredients to attain what it considered the profitable yield level of 600 pounds per acre, namely: suitable soils, high yielding varieties, continuous research. The Committee recognised the inadequacy of the available managerial talent, but nevertheless proposed as the basis of a new scheme:

- (a) replanting 2,000 acres per year, and
- (b) a Government contribution of \$2m. per year of which \$830,000 was for cash subsidies, \$640,000 for producing plants, and \$110,000 for research.

In spite of the good intentions, in 1966 the Cocoa Rehabilitation Scheme started a phased withdrawal of cash subsidies and the Cocoa Board finally ceased operating in 1968. Plants continue to be available from the Ministry of Agriculture at a subsidised cost of 10 cents each but demand is only some 10-15 per cent of what it was.

Perhaps the most serious difficulty the industry faces is the problem of low and fluctuating prices over which Trinidad and Tobago has no control. This problem plagues all export crops which are subject to world competition and the laws of supply and demand. It is one of the arguments used to suggest the phasing out of cocoa and its replacement by food crops for local consumption.

The effect of low prices is accentuated by low yields and poor cultivation practices. It costs as much to keep an acre of cocoa free from weeds whether it is yielding 100 pounds per acre or 1000. The Cocoa Research Unit has shown experimentally that the planting material now available has a yield potential of up to 2,000 pounds per acre or more provided that it is properly managed.

With inflationary pressures on the wages of the non-agricultural sector it is not surprising that agricultural labour should also press for increases on its admittedly low levels. There is now a shortage of agricultural labour in spite of high unemployment, since the wages the industry can afford cannot attract or hold labour.

The Future

The observations of the Ferrer Committee are possibly more valid today than they were in 1962. The need for a viable agriculture is obvious to all who wish to see. The present cocoa industry is the ideal base on which to establish a truly integrated, mixed type of agriculture. It is worth quoting here from an editorial from *Outlook on Agriculture*, which should be compulsory reading for all politicians and anyone else responsible for formulating the Country's Economic and Agricultural policies. It says inter alia ... *Historically the 'take-off' in industrialisation has been initiated by a relatively efficient agriculture, capable of supporting an increasing population not itself engaged in Agriculture. Developing*

countries have attempted to short circuit this well established cycle only to find that instant industrialisation is impractical. Indigenous agriculture has to be strengthened before new industrial development can be effectively undertaken . . . An injection of money is a recipe for change in any milieu, farming included. Agriculture needs the flexibility and enthusiasm of youth.

There is a number of factors which must be considered in the light of the future of the cocoa industry in Trinidad and Tobago. Cocoa is one of the few tropical crops which is not being over-produced. Between 1957 and 1965 world production doubled to reach 1.5m. tons. What is more important is that consumption kept pace. In fact, during the period 1965-69, world consumption actually exceeded production and prices rose to a highly remunerative level of over £400 per ton in 1969 as stocks were used up.

With rising standards of living in the developed countries demand for cocoa continues to rise. The USSR has increased its consumption of cocoa from 30,000 tons to 130,000 tons in the last ten years. Trinidad could easily sell double its present production of flavour cocoa. Moreover there is an ecological limit to suitable areas in the tropics where cocoa can be grown.

After some ten years of discussion an International Cocoa Agreement has at last been concluded. With a guaranteed floor price maintained by the use of buffer stocks, the fluctuations of the past should be ironed out. The similar coffee agreement has given prices to the grower unknown in the past; and if the cocoa agreement works as well, it is to be expected that the cocoa farmer should also enjoy stable higher prices.

On the local scene, the research efforts of both the University and the Ministry of Agriculture have made available to the cocoa farmer some of the highest yielding planting material in the world. And it provides some measure of resistance to both Witches' broom and *Ceratocystis*. Work continues on breeding for resistance to the universal disease of Black Pod. The material cannot, however, realise its full potential if it is not properly looked after in the field -- one of the major reasons for the failure of the farmer to increase his production per acre. In general, he fails to provide the environment necessary for high yields. The weather of course he cannot control, but things like increased Black Pod under very wet conditions can be reduced by efficient spraying.

When agricultural development in Trinidad and Tobago is discussed, a fundamental dichotomy appears. If development means the more efficient and greater production of crops per acre, the experience of developed countries shows that this has come with increased mechanisation and fewer farmers on the land. Development, however, often appears to mean absorbing on the land the maximum of the population for which industrial development cannot find a place.

There seems to be little opportunity to mechanise many operations in cocoa growing and though its labour requirement is not high, (6-8 acres per man) employment is not as markedly seasonal as say the sugar industry. There is no up-to-date survey of the industry, but nearly 10,000 farmers are registered as producers of cocoa with the Cocoa Industry Board.

If every effort is not made to resuscitate the cocoa industry then what? What alternative use would be made of 70-100,000 acres now estimated under the crop? Much of the cocoa land is of uneven topography ranging up to steep hill sides. For ecological reasons including erosion control this land should only grow tree crops.

Trinidad and Tobago must increase its local production of foodstuffs, but what will replace an article like wheat flour? This food stuff must be paid for by our exports.

With regard to food crops, it is not generally realised that in the planting of cocoa, a number of food crops are grown as temporary shade. These crops include bananas, plantains, cassava, tannia, and dasheen. Ideally, cocoa should be replanted every 35 years; thus 3 per cent of the cocoa acreage should be planted in these crops every year with a concomitant increase in local foodstuffs.

Cocoa in many ways, except for its fermentation and drying, is a very suitable crop for the small farmer with not less than about 20 acres. On this size farm the small farmer with his family, growing his food and keeping some animals, should be able to make a reasonable income. He should have available extension staff to advise him. In the Ministry of Agriculture certain extension staff should be trained to deal particularly with the tree crops cocoa, coffee and citrus.

Pressure for land is strong, but giving a farmer an acre or two of land is to relegate him to a bare subsistence living. But obviously the smaller the holding the greater the number of applicants that can be accommodated.

Another approach which should justify a pilot project is the large corporately owned holding. Taking a figure of 200 acres, rather than cut it up into 1-2 acre holdings or even 20 acre ones the whole farm should be operated as a unit. The workers would be paid a daily wage with a share in the profits at the end of the year. This approach to land use is being adopted in Jamaica. Such an enterprise would need careful planning, adequate investment and first class management. This size of holding under trained management could develop an integrated system of farming so that besides cocoa, coffee and perhaps citrus could also be grown, together with food crops and animals.

Research has provided the planting material and know-how to achieve yields on reasonably good soils of 1,000 pounds per acre. Cocoa shell has a nutritive value almost equivalent to maize and could be fed to the cattle. Windbreaks could be planted with economic timber trees such as pink poui (*Tabebuia pentaphylla*) and the Caribbean pine (*Pinus caribaea*) to provide revenue when these mature.

With regard to the existing small farmers (one half of five acres), consideration should be given to setting up central fermentaries to process their crop. Fermenting small batches, besides being time wasting, cannot produce top grade cocoa. Good marketing facilities already exist in the Cocoa and Coffee Industry Board.

Our fundamental thesis is that Agriculture must be the basis of the economy of both Trinidad and Tobago. Our most vital natural resources are the soil and the men who farm it. The farmer, unlike oil, is not a wasting resource.

There must be urgent, effective action to stem the exodus of people from the country to the already over-populated urban areas where employment becomes ever increasingly severe. Surely the time has come to halt continued industrialisation in the vicinity of overburdened urban areas. Similarly, a far higher percentage of Government financed low-cost housing schemes should be allocated to rural areas. Sub standard living conditions, for example in terms of water supply, sanitation, electricity supply, schooling and roads must be improved as a matter of urgency. No amount of Agricultural Years, Farm Schools, School Garden competitions, Agricultural Science courses will halt the exodus from the land,

unless the basic living conditions, and even more important, the take-home pay compares favourably with the rest of the community. To make the impact we visualise will require an *Agricultural Decade* with all the stops out. Only then will *agriculture* be seen as a worthy profession and not the drudgery the present generation of farmers know.

To recapitulate, there are three primary reasons for revitalising the cocoa industry of Trinidad and Tobago, namely:

- (a) Large acreages of the country are ideally suited for a crop which is entirely tropical in its requirements, in which world consumption is outstripping supply and on whose market Trinidad flavour cocoa commands a special premium.
- (b) At the present there are no alternative economic crops to take the place of the mixed cocoa and coffee holdings.
- (c) Existing cocoa and coffee estates are the ideal base on which to build a thriving integrated agricultural economy including food production which will provide employment for the rural population and stem the exodus to already overcrowded urban centres.

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