

Increasing Crops and the Standard of Living— A West Indian Example¹

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The increasing geographical division of labor together with technological advances have greatly increased the efficiency of staple commodity production within the last century. For many consumers this has resulted in greatly increased purchasing power and higher standards of living. But in some areas the producers have received only modest returns for their productive advances; their miracles of increased production have blessed consumers in distant lands.

Barbados, the easternmost island of The West Indies, exemplifies the slow increases in per capita consumption so characteristic of the islands in the new federation. About 235,000 people inhabit its 166 square miles—about 1,400 per square mile. For over three centuries Barbadian planters have been noted as sugar producers—rightfully as their crop has yielded nine-tenths or more of the island's domestic exports. Nor have these planters failed to take advantage of new methods so far as their capital and available markets permitted. Since Emancipation (1834) the Barbadian sugar output has increased from an average of about 20,000 tons to a record-breaking 204,000 tons in 1957. The quality has also improved—the dark crystals exported today are much sweeter than the muscovado exports of the nineteenth century. The planters obtained this increase in part by adopting techniques developed elsewhere: better cultivation and more complete extraction from the cane by use of steam power, more rollers, and vacuum pans. But also in cooperation with a competent Department of Science and Agriculture, they have contributed much to sugar cane techniques in fertilization, pest control, and especially in breeding new cane varieties, a pioneer accomplishment in Barbados.

What have Barbadians received in return for this tenfold increase in production? Many planters have gone into bankruptcy and others have been close to it. Many estates have been subdivided into urban housespots and small peasant holdings. For the great majority living standards have not increased as they have, for example, in England; unemployment or underemployment have more commonly been their lot. Surplus labor has sought markets for its services in the Canal Zone, the United States, and, most recently, England. But the enlarged product of the planter and the considerable remittances from labor overseas have not brought abundance to most Barbadians.

Why? The prices of consumers goods—largely imported into Barbados—have increased with the declining value of the currency. Sugar is an exception: the world price of sugar today is about the same as in the 1840s. A century ago in Barbados sugar retailed at 12

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cents a pound, today at 11 cents. Over the same period butter has increased from 24 to 98 cents a pound; wheat flour from 3 to 11 cents; saltfish from 6 to 34 cents; beef from 15 to 55 cents.

Although wages have increased considerably from the 16 to 24 cents per day for male agricultural labor which prevailed from 1840 to 1940 (except for a few years during and after World War I), even in recent years earnings have not been high in relation to the cost of living. Including about 1,500 whose income tax returns indicated that they received more than U. S. \$1,500, the annual per capita personal income of Barbadians averages only about \$180.²

Typical Barbadian budgets have been collected and analyzed by Straw (1, 2). His survey showed that the average weekly income per household in 1951-52 was \$9.34 in the out-of-crop season. During the crop season, the average rose to \$12.00 but even then two-thirds of the households had incomes below \$8.40.

Using budgets from 1,336 households with weekly incomes below \$30, Straw (2) estimated that 51 percent of the budget was spent on food, 14 percent on clothing, 13 percent on housing, fuel and light, 4 percent on durable goods, and 18 percent on miscellaneous including tobacco, alcohol, recreation, medical expenses and transportation.

On such a budget the typical Barbadian lives in an incredibly small house neatly built from imported pine or fir. His clothing is commonly of cheap cotton cloth, neatly designed and usually supplemented by a much better Sunday outfit. Like his house, his household furnishings are often plain but neatly maintained. His diet is simple and often monotonous: one-fourth of his food budget is spent on meat and fish, three-eighths on cereals, starchy vegetables and sweets, and about one-fifth on dairy products and cooking oils. Straw estimated (2) that this diet was almost adequate in calories but deficient in animal proteins, calcium, and vitamins A, B, and C.

In The West Indies, the Barbadian is considered a hard worker. His modest standard of living arises from lack of opportunity rather than lack of ambition. Nor is he lacking in thrift: in 1955, 43,817 Barbadians had savings bank accounts and 101,830 saved through friendly societies. The recognized practice is to save during periods of high earnings and to spend savings and friendly society bonuses during periods of unemployment.

The changes in the Barbadian standard of living since 1843 (3) can be partially determined by examining the net imports. This is possible because Barbados imports three-quarters or more of its food, and almost all of its lumber, durable goods, textiles and clothing, and other consumers goods. The imports of such staples as wheat flour, cornmeal, rice, butter, salt meat, salt fish, and lumber can be easily compared; similar studies for textiles, clothing, durable goods and machinery are very difficult or impossible because of changes in fashions, price levels, and in the items included in the totals of values.

² All dollar figures in U. S. dollars converted at the rate of B.W.I. \$1.00 equals U. S. \$.60.

Elsewhere the author (4) has analyzed the annual fluctuations in major imports from 1865 to 1935. Here attention is called to broad trends in sugar production and related trends in consumption. From 1844 to 1884 the increasing efficiency of the sugar producers enabled the island to maintain its purchasing power. The following decade was unstable with increasing signs of distress and consumption fluctuated accordingly. By 1895 most of the plantations were in bad shape, other sources of income were sought such as cotton and vegetables, and labor migrated on an increasing scale. World War I and the failure of alternate sources of income brought a return to sugar. After one of the poorest sugar years on record (1921), years of moderate prosperity were intermixed with poor years and living standards declined. World War II returned prosperity to the sugar industry, shipping difficulties forced the island to grow more of its own food, and after the war living standards started upwards. The post-war period was one of unusual stability, partly because sugar prices were maintained by the Commonwealth Sugar Agreement; modernization both in town, in the sugar factory, and in the fields was evident.

How much has the per capita consumption of the basic staples increased in the last century? Take housing: disregarding some government model home developments, the typical Barbadian laborer's house is essentially the same as it was a century ago. Annual lumber imports have remained remarkably steady at 40-50 feet per capita except in depression years such as 1885-86, 1895 and 1921 when imports are halved. The general trend of lumber imports reflects changes in population.

Cereal consumption is equally stable: the per capita consumption averages slightly over 200 lbs. as it did a century ago. The severity of the 1921 crisis is shown by the drop of cereal imports to 135 lbs. per capita. The distress of the people that year is shown by an infantile death rate of over 400 per 1,000 live births. But in most years, cereal consumption is maintained for cereals are the cheapest food.

Preserved meat and fish are more in the luxury class and year to year changes in the imports reflect the prosperity of the island. Straw's weekly average budget would permit the purchase of about one-half pound of preserved meat or fish per capita. Per capita imports were about twice this figure in 1845, about this figure in the 1890s and 1900s, two-thirds this figure in 1921, and 50 percent above this figure in 1955. The high imports of salt meat and salt fish in the 1840s probably reflect the undeveloped state of the fishing industry then and the almost negligible import of live animals for slaughter. In the last decade powered fishing vessels, and frozen meat imports have greatly increased the amount of protein available but animal protein consumption is still low among the poorer class.

The Barbadian diet is less monotonous than a century ago; flavor imports have increased, for example, tea imports per capita in 1955 were 10 times those in 1845. Milk imports were unknown in 1845; today dried, evaporated, and condensed milk are staples in every grocery store. A further increase in the local milk supply resulted from the substitution of dairy cattle for draft animals with the mechanization

of agriculture. Per capita butter imports have remained at about 3 lbs. since 1845 but the consumption of fats has considerably increased as margarine and cooking oils have been added to the diet.

Although increased per capita consumption of most staples has been modest, there is other evidence that living standards have improved. Death rates have been halved since the 1920s, largely because of the decrease in infantile mortality from 200-400 in the 20s to 100-145 in the 1950s. The poorer part of the populace have also been greatly benefited by free pure water, public baths and latrines, free clinics, free school lunches, free movies in the rural districts, and government housing projects. In the last decade wages have generally risen as fast or faster than prices and bonus payments in the sugar industry have given the workers a share in the profits from increased crops.

With all its tenfold increase in sugar production, only in recent years has Barbados been able to feed the bulk of its people adequately. The amounts available in most Barbadian budgets for little luxuries remain pathetically small. Meanwhile the population increases while further mechanization in tillage, manufacture and shipping decreases employment in the sugar industry. In spite of a net migration of 10,300, the average annual rate of population increase from 1952 to 1957 was 1.2 percent. Government population estimates for 1970 are, according to the assumptions adopted, 280, 288 or 322 thousand. Nor is local production of most foodstuffs feasible. Engledow (5) estimates that 48,000 acres of land would be needed to raise the food equivalent of the cereal, bean and pea imports—this is more land than is now harvested each year in sugar cane. Even the complete taking over of all rural land on the island for food would probably not suffice to feed the 1970 population and such action would destroy the major source of Barbadian income, sugar.

The example of Barbados shows that increasing physical productivity alone will not solve the economic problems of many specialized areas producing staple commodities for export. These areas ship their produce to distant markets; they can neither control the price of the goods they sell nor of those they buy. Many of these areas are becoming politically independent; their peoples are growing increasingly aware of the higher living standards enjoyed elsewhere. Such areas may well become sick spots in the international economy.

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