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# Intelligence Report

*Cuban Sugar Production in 1967  
and Prospects for 1968 and 1970*

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CENTRAL INTELLIGENCE AGENCY  
Directorate of Intelligence

INTELLIGENCE REPORT

Cuban Sugar Production in 1967  
and Prospects for 1968 and 1970

Summary

The growth in production of Cuban sugar continues to be slow and erratic. Sugar output has fluctuated as a result of the weather and has been held down by organizational shortcomings and the loss of harvest workers to other occupations. Production in 1967 of 6.1 million tons,\* although far below planned goals, was the largest crop since 1961. Production in 1968 will decline because of dry weather, and the crop probably will be about 5.5 million tons. Plans for 1970 call for 10 million tons of sugar, but production will probably rise to no more than 7.5 million to 8 million tons because of limitations in harvesting and milling capacity.

A crop of 8 million tons in 1970, with some growth in nonsugar exports, could raise Cuba's total export earnings nearly 40 percent but would not result in a comparable rise in import capacity, because Soviet credits are expected to decline. Credits from Free World sources also are likely to decline by 1969 or 1970. The USSR, however, probably will import larger quantities of Cuban sugar and will continue to pay prices far above world market levels. The net reduction in total Soviet economic assistance, consequently, will be small because of rising sugar subsidy payments.

\* All tonnages are in metric tons.

*Note: This report was produced by CIA. It was prepared by the Office of Economic Research and coordinated with the Office of Current Intelligence. The estimates and conclusions represent the best judgment of the Directorate of Intelligence as of November 1967.*

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(no page 2)

The 1967 Sugar Harvest

1. The Cuban sugar harvest of 1967 totaled 6.1 million tons, nearly 40 percent larger than the drought-ridden crop of 1966 but only slightly more than the 1965 crop (see Table 1). The sharp recovery in production was the result of a very favorable growing season, a record application of fertilizer, and a long harvesting season. The 1967 harvest -- exceeded only by the crops of 7.2 million tons in 1952 and 6.8 million tons in 1961 -- fell far short of the official goal of 7.5 million tons, but probably was well within the range expected privately by most Cuban officials.

Table 1

Cuba: Sugar Production  
1950-67

<u>Year</u>	<u>Thousand Metric Tons</u>	<u>Year</u>	<u>Thousand Metric Tons</u>
1950	5,560	1959	5,965
1951	5,760	1960	5,860
1952	7,225	1961	6,765
1953	5,150	1962	4,815
1954	4,890	1963	3,820
1955	4,530	1964	4,400
1956	4,740	1965	6,050
1957	5,670	1966	4,455
1958	5,780	1967	6,130

2. One of the most notable features of the 1967 crop was the length of the harvest season, the longest in Cuban history. Traditionally, harvesting does not begin until mid-January because of the low sucrose content of the cane prior to this time, and it rarely extends beyond June, when the rainy season normally stops harvesting work. Cutting of the 1967 crop, however, began at the end of November 1966 and, in a few areas, continued

into mid-July as a result of below-normal rainfall.\* The early start of the harvest season was an effort to compensate for Cuba's failure to increase significantly its harvesting capacity in the past two years. At the peak of the 1967 season, the daily harvesting rate was only slightly higher than during the same period in 1965. Even with the exceptionally long harvest season in 1967 -- 7 percent of the cane harvested was cut in November and December and 0.6 percent was cut in July -- less than 1.1 million hectares of sugarcane probably were cut, out of total plantings available for harvest of about 1.2 million hectares. Had the entire crop been harvested, production would have been about 6.5 million tons.

Prospects for the 1968 Harvest

3. The volume of sugarcane available for harvest in 1968 will decline because of another serious drought, and sugar production probably will total about 5.5 million tons. Rainfall was about 20 percent below normal during the first nine months of 1967, the main part of the growing season for the 1968 crop. Moreover, the drought was most severe in the eastern half of the island, the principal cane-producing area.

4. Harvesting capacity will be increased during 1968 because of more extensive use of machinery to cut and handle the sugarcane. In addition, the harvest season again will be lengthened because cutting began in early November, nearly a full month ahead of 1967.

\* Yields suffered during the early part of the harvest because of the lower sucrose content of the cane. For the month of December, milling yields averaged about 9.5 percent, compared with yields of 12.1 percent for the 1967 harvest as a whole.

Outlook for Sugar Production in 1970

5. One of the highest economic priorities in Cuba is the expansion of sugar production. The official goal for 1970 is the production of 10 million tons of sugar. Cuba's ability to grow sufficient cane for this level of production is not seriously questioned, but its harvesting and milling capacity is inadequate to handle a crop of this size. Work is under way to expand this capacity; but even with the projected additions, sugar production in 1970 probably will reach no more than 7.5 million to 8 million tons.

6. Cuba's ability to harvest its sugar crop has declined since 1961 as a result of the migration of farm workers to sectors of the economy where employment is less seasonal and more remunerative. The government has been unable or unwilling to stop this movement. Although agriculture as a whole has been hurt, the sugar sector has been the hardest hit because of its large labor requirements. In the 1950's, Cuba had a field labor force of 350,000 to 400,000 for the sugar harvest. In 1967 not more than 150,000 professional cane cutters probably were available. This force was supplemented by 73,000 workers recruited from other parts of the economy, by about 30,000 men from the armed forces, and by an unknown number of student volunteers. The total labor force for the 1967 harvest was not only smaller than in former years but also less efficient because of its makeshift character.

7. The Cuban government is aware that it can compensate for the loss of labor and achieve significant increases in harvesting capacity only by mechanizing the cutting and handling of the sugar crop. Although some mechanization efforts, such as the introduction of cane combines, have been ill conceived, progress has been made. For example, a cane loading machine that increases the productivity of field workers by as much as 35 percent has been developed. In the 1967 harvest, about 40 percent of the crop was loaded mechanically by some 4,500 machines of this type.

8. The 1967 harvest also saw the introduction, on a large scale, of an innovation known as the cane collection center (*centro de acopio*). The collection center is a stationary machine placed at rail loading points where the cane is transferred from field vehicles to rail cars for shipment to the mills (about 75 percent of all cane is transported by rail to the mills). These machines receive the cane with only the top removed, automatically clean the cane of leaves and straw, cut it into short pieces, and load it onto rail cars. The 65 cane collection centers employed in the 1967 harvest did not meet their production norms -- probably because of inexperience in organizing the work of the centers and because of transportation problems -- but they did make a significant contribution. The labor force assigned to the collection centers in the 1967 harvest was expected to be 75 percent more productive than other harvest workers. Its actual productivity, however, was only 25 percent to 50 percent greater than that of other workers.

9. Because little change is likely in the size of the harvest labor force by 1970, increases in harvest capacity will continue to hinge on gains in labor productivity that can be made through mechanization and higher cane yields. Current plans call for a total of 400 collection centers to be in operation for the 1970 harvest. A labor force of about 85,000 would be associated with this number of collection centers, including cane cutters, transportation workers, and workers assigned to the operation of the centers. If the original production norms are met by 1970, which seems probable as more experience is gained, these 400 centers could harvest sufficient cane for about 3.4 million tons of sugar. The remainder of the labor force, at its present level of productivity, could produce about 4 million tons of sugar for a total harvest of 7.4 million tons.

10. The productivity of the harvest labor force as a whole by 1970, however, should be greater because of higher yields of cane as a result of increased fertilization. As shown in the following tabulation, fertilizer supplies for all agriculture

uses have risen sharply in recent years and further increases are planned by 1970. (About half of all fertilizer used is applied to sugarcane.)

Year	Thousand Tons	Year	Thousand Tons
1957	160	1964	700
1958	112	1965	460
1960	340	1966	745
1961	265	1967 (preliminary)	1,075
1962	485	1970 (planned)	1,300
1963	325		

These additional factors, along with more extensive cutting early in the season, probably will increase the total harvest capacity in 1970 to between 7.5 million and 8 million tons. Investments now being undertaken in transportation, moreover, should prove adequate to move a crop of this size to the mills.

11. Milling capacity also limits Cuba's ability to produce 10 million tons of sugar in 1970. Existing mills in their present state of repair could have ground a crop approaching 7 million tons in 1967 had sufficient cane been available. Tentative plans to construct new mills are not far enough advanced to add to present capacity by 1970, but a program now under way to modernize and expand existing mills will provide additional grinding capacity. This program, along with the more intensive use of mills early in the harvest season, should bring total milling capacity easily within the range of the harvest capacity estimated for 1970.

#### Implications for Sugar Exports in 1970

12. If Cuba produces 8 million tons of sugar in 1970, it will have 7.4 million tons available for export, compared with 5.6 million in 1967. The bulk of such an increase probably would go to the USSR (see Table 2). Under the terms of an agreement signed in early 1964, Cuba is scheduled to export 5 million tons of sugar annually to the

USSR in 1968, 1969, and 1970. These export projections were based on unrealistic output goals; the export of about 4 million tons to the USSR in 1970 is more likely. The failure of Cuba to meet the terms of its agreement will work no hardship on the USSR. Soviet purchases of Cuban sugar are politically motivated and have little economic justification. The Soviet Union is self-sufficient in sugar production and probably will continue to be so through 1970. Cuban sugar exports to other Communist countries and to the Free World have fluctuated considerably over the past five years and have increased only moderately for the period as a whole. This trend probably will continue through 1970.

Table 2  
Cuba: Sugar Exports a/  
1963-67 and 1970

	Thousand Metric Tons					
	1963	1964	1965	1966	1967 (Estimated)	1970 (Projected)
Communist countries	2,080	2,661	3,610	3,258	3,800	5,400
USSR	973	1,774	2,110	1,815	2,500	4,000
Eastern European	572	306	669	789	800	900
Far Eastern	534	581	832	654	500	500
Free World countries	1,441	1,515	1,705	1,177	1,800	2,000
Total	3,521	4,176	5,316	4,435	5,600	7,400

a. Because of rounding, components may not add to the totals shown.

13. Sugar exports to all countries of 7.4 million tons in 1970, together with an allowance for some growth in nonsugar exports, could increase the total

value of Cuban exports nearly 40 percent over 1967 (see Table 3). This estimate assumes that Communist countries, with minor exceptions, will continue to pay 6 cents per pound (f.a.s.) for Cuban sugar as they have since early 1963, and that Free World sugar prices will improve somewhat from their depressed levels in 1966 and 1967.

Table 3. Cuba: Value of Exports of Basic Commodities, 1967 and 1970 (in millions of US dollars)

Table 3 is an indicative estimate of the value of Cuban exports of basic commodities in 1967 and 1970. The 1967 figures are based on actual data, and the 1970 figures are projected. The 1970 figures are based on the assumption that Communist countries will continue to pay 6 cents per pound (f.a.s.) for Cuban sugar, and that Free World sugar prices will improve somewhat from their depressed levels in 1966 and 1967. The 1970 figures are based on the assumption that the price of sugar in Free World markets will rise to 2.6 cents per pound in 1970. The 1970 figures are based on the assumption that the price of sugar in Communist markets will remain at 6 cents per pound (f.a.s.) in 1970.

(Estimated) (Projected)

	(Estimated)	(Projected)
Sugar exports (f.o.b.)	590	850
Communist countries	510	735
Free World countries	80	115 a/
Nonsugar exports (f.o.b.)	125	150
Total	715	1,000

a. This estimate assumes an average price of 2.6 cents per pound in Free World markets in 1970. If, however, the price stays at the same level as in 1967 (about 2.0 cents per pound), the value of these exports would be only \$90 million.

14. The projected rise in Cuban export earnings in 1970 will not result in a comparable increase in import capacity, because drawings on foreign credits to finance trade imbalances probably will fall off. The USSR, Cuba's largest creditor, apparently wants to reduce its direct balance-of-payments support as

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Cuba's ability to export increases.\* Consequently, most of the increase in Cuba's export earnings from the USSR will be used to replace this support. The net reduction in total Soviet economic assistance, however, probably will be small because of rising sugar subsidy payments. The use of credits from non-Communist sources also can be expected to decline by 1969 or 1970. Cuba's indebtedness to Free World suppliers and banks has risen sharply in the past two years. An increase of \$50 million is expected in 1967, bringing Cuba's Free World indebtedness to a total of about \$150 million. This rate of debt accumulation cannot be maintained, and Cuba will need to reduce or eliminate its trade deficit with Free World countries over the next several years in order to stabilize its debt position.

74

(Estimated) (Projected)

1966	280
1967	330
1968	380
1969	430
1970	480

... of world average price ...  
... in 1966 ...  
... level ...  
... (the value of ...)  
... \$20 million

\* In 1961-66, Cuba received about \$1.1 billion in economic credits and grants and some \$360 million in sugar subsidy payments from the USSR. The Soviet sugar subsidy to Cuba in 1967 is estimated at \$225 million. Cuba's annual trade deficit with the USSR has ranged from a low of \$105 million in 1965 to a high of \$295 million in 1963.

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