CUBAN AGRICULTURE: ADAPTING TO NEW POLICIES AND NEW REALITIES IN A WORLD OF LIBERALIZING TRADE

by

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INTRODUCTION

The International Agricultural Trade and Development Center in the Department of Food and Resource Economics at the University of Florida has been conducting research on Cuba's agricultural sector since 1992[1]. Drawing upon the base of information developed under that research initiative, this paper discusses current conditions and recent developments that will be important with regard to Cuba's future agricultural production and trade potential in the context of broader Caribbean trade issues and trends toward liberalized global trade.

Agriculture has historically been a fundamentally important sector of the Cuban economy. For nearly all of this century, agriculture has consistently provided over two-thirds of Cuba's total export earnings. In fact, during the 1980s, the agricultural sector provided over 80 percent of Cuba's total export earnings.

Until 1960, the United States had consistently been an important supplier and market for Cuba. However, following the revolution and the embargo imposed by the United States on its trade with Cuba, a radical restructuring of Cuban trade occurred. After suffering some decreases in the value of both imports and exports in the first few years after the revolution as the restructuring of trade was taking place, by 1964, Cuba's total value of trade had recovered and, in fact, exceeded the levels from 1958. Between 1958 and 1964, Cuba shifted from importing 70 percent of its goods from the United States to importing approximately the same percentage (68 percent) from the Soviet Union and other communist countries, chiefly in Eastern Europe. Over the same period, Cuba shifted nearly all of its exports to the same set of nations (Anuario Estadístico 1990).

[1] With the financial support of the John D. and Catherine T. MacArthur Foundation, this research is being conducted via a programme of active collaboration between the International Agricultural Trade and Development Center at the University of Florida and the Center for Research on the International Economy (Centro de Investigaciones de Economía Internacional) at the University of Havana. The MacArthur Foundation grants have been a pivotally important element of this research project and are hereby very gratefully acknowledged.

Most of the transactions with the COMECON countries were conducted at terms of trade very favorable to Cuba.[2]

It is interesting to note that, in 1959, Cuba recorded a deficit in its balance of trade for only the fifth time in the 20th century. This was the beginning of what would become a chronic trade deficit for the Cuban revolutionary government and this deficit would grow to exceed $2 billion pesos per year from 1985 through 1989 (Anuario Estadístico 1990).

With the fall of the Berlin Wall in 1989 and the subsequent collapse of the former Soviet Union, the preferential trading relationships that made up nearly 85 percent of Cuba's trade and upon which Cuba had come to rely so heavily essentially disappeared within less than two years. These developments resulted in approximately a 50 percent decline in Cuban economic output and a 75 percent reduction in Cuba's trade between 1990 and 1993.

POLICY CHANGES AND THEIR IMPLICATIONS FOR AGRICULTURAL PRODUCTION AND TRADE

As a part of the effort to "reintegrate" or "reinsert Cuba into the world economy," and indeed to prevent total economic collapse, in 1993 the government of Cuba began to institute a number of new policies--policies that just two to three years earlier would have been totally unthinkable. One example of these policy changes was the decision by the government to permit its citizens to hold and spend U.S. dollars. Prior to this policy change, Cuban citizens caught with U.S. dollars were imprisoned and their dollars confiscated.

Another significant policy change was that, for the first time, the Cuban government officially sanctioned self-employment in a limited number of categories. These new entrepreneurs are not permitted to hire any employees, although they can include immediate members of their family in their self-employment activities. Nevertheless, this is a noteworthy change.

With specific regard to the agricultural sector, the economic crisis in Cuba prompted the government to implement three particularly important policy changes: 1) the decision to break up large state farms into production cooperatives; 2) the opening of agricultural markets, where prices are not controlled by the State; and 3) allowing foreign investment into the agricultural sector.

The Dismantling of State Farms

Prior to 1989, large state farms were providing approximately 80 percent of Cuba's total agricultural production. These state farms were highly mechanized and very heavily reliant on fertilizers and pesticides. Nearly all of the equipment and the necessary spare parts, the fuel to run the equipment and the agrochemical inputs to operate the State farms were imported. With the collapse of its preferential trading arrangements beginning in 1989, Cuba was suddenly left with little access to these critical inputs. As a result, production on the state farms deteriorated in a matter of only three years to the point where the government was forced to acknowledge that the state farms simply were no longer viable.

[2] For additional detail on this topic see Alvarez and Messina, 1993.

Thus, in 1993, the Cuban government initiated a programme to transform the state farms into co-operatives operated by the former state farm workers. The co-ops are known as Basic Units of Co-operative Production (the Spanish acronym is UBPC for Unidades Basicas Produccion Co-operativas). This is an especially important philosophical change for Cuba given that Fidel Castro had historically referred to state farms as the "superior form of agricultural production."

It is worth noting that the legislation establishing the UBPC's specifically states that motivations behind their creation include giving the co-op members some measure of decision making power over their resources (factors of production) and more closely relating earnings with production performance (Gaceta 1993).

Opening of Agricultural Markets

The second important policy change occurred in 1994 as food shortages in Cuba began to reach crisis proportions. Since the 1960s, Cubans have received ration coupons that entitle them to access basic supplies of food staples in special state ration stores. However, with the onset of the economic difficulties in 1990, supplies of food in the ration stores began to dwindle. Families simply were unable to obtain enough food to feed themselves without resorting to buying on the black market where prices were extremely high and U.S. dollars were the only currency accepted.

In an effort to bring food supplies out of the black market so as to be more accessible to all Cubans (i.e. even those without access to hard currencies either through tips at jobs in the tourism sector or remittances from family members outside of Cuba), in September of 1994, the Cuban government announced the opening of agricultural markets (mercados agropecuarios) where farmers and cooperatives of all types could sell their "surplus" crops (agricultural production in excess of quotas which must be sold to the state marketing agency, *Acopio).* Prices in these markets are not controlled by the state.

It is interesting to note that these agricultural markets are similar to an experiment with farmers' markets, which the Cuban government attempted in the early 1980s. However the early markets were ordered closed by Fidel Castro in the mid 1980s because the profits earned by middlemen were deemed "excessive" and counter to the egalitarian underpinnings of the revolution.

These markets have provided a critical link in the incentive system for the UBPC's and other agricultural enterprises in Cuba as agricultural producers of all types were quick to understand the nature of incentives and how markets operate. Co-ops have the authority to decide upon whether to sell their surplus on the local market or to send it into the city market and there are a number of factors influencing their decision. For example, the government charges a tax on all goods sold in the agricultural markets and tax rates at markets in the cities are lower than the tax rates in the rural markets to encourage food availability in the cities. Also, it obviously costs more to transport goods to the more distant city markets than to the local market. And finally, prices vary between markets and even within the same market from day to day and from the morning to afternoon depending upon product availability. The co-op members monitor all of these factors to determine which market will generate the highest revenue or "surplus" (use of the term "profit" is carefully avoided) for their cooperative and they direct products accordingly.

For all of their positive aspects, the creation of the UBPC's and the opening of agricultural markets have not generated the increases in agricultural production which might have been envisioned. There are several factors that contribute to this disappointing result. One of the most important factors is that input markets have not been liberalized at all; regardless of how much money cooperatives have accumulated in surplus earnings from their sales at the agricultural markets, they still have little or no access to fertilizers and pesticides.

Given the environmental dimension of this conference, in discussing the use and availability of agrochemical in Cuba, an observation is clearly in order on the implications of the situation facing Cuba's agricultural sector on questions of environmental degradation and sustainable agricultural practices on the island. There is a body of recent literature that describes Cuba as the most extensive experiment in organic agriculture anywhere in the world, and that is probably an accurate assessment. This same body of literature describes Cuban farms and cooperatives across the island as being firmly committed to organic production practices and principles in the long term -- this observation is not consistent with the experience of our research team members during their trips to Cuba.[3] When we visited co-ops and a local representative of the Ministry of Agriculture or other party member was present, the co-op members indeed talked about their successes with organic production methods and their long-term commitment to organic production. However, any time we have been able to talk with the co-op members separately, they always mention how helpful it would be to have access to even small additional amounts of fertilizer and pesticide. This is not to suggest that the cooperatives would use chemical inputs in an indiscriminate or irresponsible manner, but it is as an indication that the commitment to organic production may not be the permanent trend that some of the research literature suggests.

There are other problems as well. For example, UBPC's have not been given the autonomy to adjust their production mix. Rather than allowing the co-ops to produce what they feel they are most efficient at producing, the quota volumes which co-ops must sell to the state marketing agency are based on the crop mix on the co-op's land when it was part of the state farm.

Finally, in the interest of keeping food supplies accessible in the cities, the government has been reported to bring food onto the agricultural markets and sell it at prices significantly lower than the prevailing levels, thus forcing other vendors to either meet the price or carry their products home with them at the end of the day. While this practice may help the government to satisfy its short-run goal of promoting food availability at low prices, in many instances it has discouraged cooperatives from bringing their surplus production to the markets.

[3] Faculty and graduate students from University of Florida involved in this project have made more than a dozen trips to Cuba since 1994 either individually or in groups of up to four people and nearly all of which included trips to farms and/or agricultural processing facilities. Two of the trips were approximately six weeks in duration, and involved extensive field workand research on farms and cooperatives.

In other words, there are some structural rigidities and impediments that have prohibited the full impact of some of these policy changes to be completely effective in the agricultural sector.

Foreign Investment in Agriculture[4]

Fidel Castro himself acknowledged the significance of this policy change in a speech on July 26, 1993 when he said: "Who would have believed that we, so doctrinaire, we who fought foreign investment, would one day view foreign investment as an urgent need."

This policy change is not unique to the agricultural sector and, in fact, the tourism and mining industries have attracted far more foreign investment than the agricultural sector. Of the approximately 260 foreign economic associations which the Cuban government reports since 1990, about 20 have been in agriculture or food processing. Most of these tend to be prefinancing arrangements providing fertilizers, pesticides, post-harvest handling expertise and supplies, and/or marketing assistance, etc., as opposed to hard investments in plant and equipment.

In dollar terms, most of the agribusiness investment has gone into the citrus industry, primarily for the shipment of fresh fruit to markets in Europe. Since 1990, Israeli, Chilean, Greek and British firms have attempted various joint venture, pre-financing, and marketing arrangements in different locations in Cuba with limited success. In fact, the only arrangements reportedly still operating are an Israeli joint venture to manage a 38,000 hectare citrus plantation in Jaguey Grande, about 80 miles east of the City of Havana in Matanzas Province, and a Chilean economic association for juice processing at the same location.

Major foreign investment also has been made in the tobacco industry as well by Spain, France and the United Kingdom. These investments have been for the export of tobacco leaves, cigars and cigarettes. With the world-wide increase in the popularity of cigar smoking and the outstanding reputation of Cuban cigars, prospects are favorable for growth in Cuba's tobacco industry.

Despite this inflow of foreign investment, citrus and tobacco production and exports have actually decreased since 1990. Production data by farm or plantation is not available, so it is not possible to track the performance of agricultural operations with foreign investment versus those without foreign investment. It may well be that production gains at the operations with joint investment are masked by deteriorating production volumes at farms operated by the state without the benefit of foreign investment. Until such time as additional detailed data becomes available[5], the most that can be said is that foreign investment in the agricultural sector probably prevented the value of Cuba's agricultural exports from falling even more dramatically that it has.

[4] For additional detail on this topic see Ross, James E. and Maria Antonia Fernandez Mayo, 1997.

[5] The Cuban government has not published its detailed statistical summary *Anuario Estadistico* since 1990. Furthermore, since the passage of the Helms-Burton legislation by the United States in the spring of 1996, the ability of the University of Havana to provide data for the project has been restricted by the government of Cuba.

FUTURE CHALLENGES

Each of the individual commodity sub-sectors in Cuba face unique challenges for development and adaptation as situations and circumstances continue to change while Cuba attempts to "reintegrate" itself into the global economy. Brief discussions of some of these challenges follow.

The Sugar Industry

The sugar industry is a pivotally important element of the Cuban economy, in that, for the past 30 years, sugar exports have consistently represented over 70 percent of the total value of Cuban exports. However, the prospects for the future of this industry in Cuba are unclear at the present time. Cuban sugar production in the 1989-90 season was over 8 million metric tonnes and by 1994-95, production had dropped to approximately 3.3 million metric tonnes -- the lowest volume in over 50 years.

The problems facing Cuba's sugar industry are many. Fertilizers, pesticides, fuel and spare parts for machinery are in critically short supply. As early as 1992, the Cuban government acknowledged that more than 100,000 oxen were being used throughout the country to replace tractors chiefly in the sugar industry, and that plans called for continued expansion in the use of animal traction. At the same time, Cuba's sugar mills and processing facilities are antiquated and some mills are being closed every year and cannibalized to keep other mills running.

The Cuban government has not allowed foreign investment in the sugar industry because of the "strategic" position it holds in the country's economy. For the past two seasons, the government of Cuba has, however, negotiated a number of short-term, high interest loans from sugar brokerage houses and banks to purchase needed inputs to help recover from the disastrous 1994-95 harvest. These loans have assisted the recovery process as the 1995-96 harvest reached about 4.5 million metric tonnes -- a significant improvement from the previous year's 3.3 million metric tonne figure, but still only slightly over half of the production volume for 1989-90. International sugar industry analysts have indicated that failure to achieve further production increases beyond the 4.5 million metric tonne level may jeopardize Cuba's ability to repay the loans and meet its export commitments to Russia, China and other countries as part of negotiated barter arrangements. However, Cuba's projected production for the 1996/97-year is below that level at around 4.2 million metric tonnes. Increases in the world sugar price this year will help to offset the financial impact of the production shortfall. Nevertheless, the short-term loans do not appear to be sufficient to allow Cuba to address the problem of deteriorating infrastructure in the sugar industry.[6]

Cuba's aging sugar mills and related infrastructure will require massive amounts of new investment before the industry can begin to reassert itself as a dynamic and competitive participant in the world sugar market. At present, the prospects for such investment are quite limited.

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[6] For additional information on Cuba's sugar industry see: Peña Castellanos, Lázaro and José Alvarez, 1996.; Alvarez, Jose and Lázaro Peña Castellanos, 1996; Alvarez, José and Lázaro Peña Castellanos, 1995; and Alvarez, José, 1992.

The Citrus Industry

The motivation for foreign investment in the citrus industry would appear to be two-fold: first, there is the obvious goal of increasing export earnings which is critically important to the Cuban economy as it struggles to adapt to the loss of Soviet subsidization. Secondly, the Cuban government presumably is concerned about protecting its asset base (investment) in citrus groves; foreign investment allows Cuba to properly maintain at least a portion of its more than 300,000 acres of citrus trees, thus keeping the trees from dying and losing all of their otherwise long-term production potential.

At least a part of the attraction of Cuba's citrus industry to foreign investors is the fact that, in addition to its large number of mature trees, Cuba's climatic conditions are slightly warmer than Florida's and, as a result, Cuba's citrus matures about a month before the groves in Florida. This provides Cuba with a market window that allows fresh citrus (primarily grapefruit) from Cuba to be shipped into the European market about a month before Florida's grapefruit crop begins to mature.

As discussed previously, despite the foreign investment which has flowed into the citrus industry in Cuba, the results have been mixed. The fact that the foreign investment has not brought about the hoped for increases in production and exports suggests that the citrus industry also may require substantial levels of investment to achieve significant results. While Cuba's citrus packing and processing facilities are not state-of-the-art, they are much newer and in far better condition than the facilities for the sugar industry. For that reason, the level of investment necessary is unlikely to be anywhere near as large as that required by the sugar industry.[7]

Other Crops

Cuba clearly has tremendous potential as a major producer of vegetables and tropical fruit. To help put this into perspective, in 1989, Cuba had more acreage planted to tomatoes and peppers than the State of Florida. Yields, however, were less than one-quarter of that of Florida.[8]

The technology to move into state-of-the-art production and processing practices to increase yields for selected vegetables and tropical fruits could, in many instances, be transferred rapidly and relatively inexpensively. The joint venture agricultural company formed by Sherritt International and the Cuban Union Nacional de Acopio to produce fruits and vegetables in Cuba appears to be a test of this hypothesis. However, the limited amount of discretionary income which the Cuban populace possesses at the present time restricts the potential for domestic sales. For that reason, Sherritt Green is moving slowly in the early stages of developing its new agricultural enterprise, intending to market its output primarily to the tourist hotels and restaurants in Cuba in an effort to capitalize on an niche presently served chiefly by imported produce.

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[7] For additional information on Cuba's citrus industry see: Muararo, Ronald P., Thomas H. Spreen and Armando Nova González, 1996; Spreen, Thomas H., Armando Nova González and Ronald P. Muraro, 1996; Nova Gonzalez, Armando, 1994; and Behr, Robert M. and Gene Albrigo, 1991.

[8] For additional information on Cuba's vegetable and tropical fruit industries see: Moseley, Anne E. *et al.*, 1996; and VanSickle, John and William a. Messina, Jr., 1993.

Even the Cuban government acknowledges the limitations faced with regard to significantly expanding production of non-traditional fruit and vegetable crops for export. In the March 1997 issue of the official government publication *Business Tips on Cuba*, an article states that "it is unlikely that the so-called non-traditional export lines will be able, in the short-term or even in the medium-term, to generate the same earnings as the traditional lines" *(Business Tips on Cuba,* March 1997, p.27).

SUMMARY AND CONCLUSIONS

The agricultural sector is leading the way in the transition toward a market economy in Cuba. However, the Cuban government is not clearly committed to this transition, so progress is likely to be slow and difficult at best. The new cooperatives and markets are necessary, but not sufficient conditions for a continued transition and, despite the progress for agriculture, structural rigidities are likely to restrict farmers' abilities to fully respond to market forces in the near term.

Current foreign investment in Cuban agriculture, for the most part, has targeted export markets. While additional foreign investment could increase food production substantially, it is doubtful that current economic policies and investment incentives are adequate to encourage meaningful private foreign investment in agricultural production for the domestic market.

With appropriate economic policies and production incentives, foreign investment capital and management, and the accompanying transfer of technology, Cuba's food and fiber industries could be greatly enhanced. These conditions, however, are not likely to develop until the U.S. embargo is lifted and, given the constraints contained in the Helms-Burton legislation which was enacted by the United States last year, that is an extremely unlikely scenario without major political change in Cuba.

Controversies regarding the Helms-Burton Act continue to surface as, not surprisingly, this legislation has placed the United States in a difficult position with regard to its foreign policy particularly with the European Union. As of the time of this presentation, the European Union has agreed to temporarily suspend action on a formal complaint to the World Trade Organization (WTO) regarding the Helms-Burton legislation. Negotiations between the U.S. and the E.U. to resolve this dispute continue, but progress is slow and the E.U. has reserved its right to reactivate the case.

In the meantime, the nations of the Caribbean continue to "walk a diplomatic tightrope regarding relations with Cuba" (Cuba News, July 1997, p. 5). Cuba has been included as a member of the Association of Caribbean States and, in a meeting in Jamaica last month, CARICOM expressed strong support for the inclusion of Cuba in future trade and aid accords, although it postponed a decision on a proposed free trade accord with Cuba. An increasing number of Caribbean leaders also are making official visits to Cuba and expanding the nature and scope of their interactions with the Cuban government.

On the Cuban side, representatives from the Cuban Ministry of Foreign Trade indicate that "efforts are being made to consolidate relations with Latin America and the Caribbean.... conversations are underway with MERCOSUR... [and] Cuba is also actively working to sign an agreement regulating its links with the EEC" (Business Tips on Cuba, March 1997). At the same time, the Cuban government reports that "Cuba's commercial links with the Caribbean region have increased 29-fold since 1991. Statistics indicate a commercial exchange of more than 200 million US dollars in 1994 and near US$300 million in 1995" and "The most significant relations exist with the Dutch Antilles, Trinidad and Tobago and the Dominican Republic" (Business Tips on Cuba, March 1997). Linkages between Cuba and the rest of the Caribbean obviously are strengthening despite the diplomatic sensitivities.

Most analysts agree that the Cuban economy has experienced some slight growth in each of the last three years. Not that the average Cuban has seen any significant improvement in their economic well-being since 1993, but the economy's free fall appears to have been halted, at least for the time being. Nevertheless, there are many pressing issues that the Cuban government must address if Cuba's economy is to keep from sliding, once again, into decline. The prevailing hope in Cuba during our last trip in July was that many of these issues would be specifically discussed and addressed during the important upcoming Party Congress in Cuba in October, as Cuba's future, in large measure, hangs in the balance.

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