
I. The Food Crisis in Cuba

Mamonal, a village located in one of the fertile valleys of Ciego de Avila, was once the king of tomatoes and sugar, as well as a host of other products. Farmers eschewed hoes for large tractors, oxen for agricultural combines, and watering cans for micro-jet irrigation systems. Mamonal tomatoes were shipped from one end of the island to the other. The Mamonal cannery produced tomato purée in 55-gallon drums, as anything smaller may have seemed not worth the effort. Ten years ago an economic crisis brought this all to a dramatic halt.

“Why bother planting?” remarked Reynaldo García, a 65-year-old farmer from Mamonal. “We didn’t have seeds. We didn’t have fertilizer. We didn’t have fuel for tractors or electricity for the water pumps. Nothing would grow.”

The tomato yield in 1994 was negligible—only 5% of its peak five years earlier. Without tomatoes, thousands of seasonal workers lost their employment and the cannery opened only ten days that year. And it was not just the tomato industry, but all industries from sugar to pharmaceuticals, that collapsed in the economic crisis. Without food in the fields, people in the cities went hungry.

The breakup of socialism first in eastern Europe in 1989 and then in the Soviet Union in 1990 created a major crisis in Cuba known as the “special period.” Cuba lost 80% of its export market and its imports fell by 80%—from \$8 billion to \$1.7 billion—practically overnight.

The country went into shock as employment, production, and standards of living went into a tailspin. In the cities, buses stopped running, generators stopped producing electricity, factories became as silent as graveyards. Obtaining enough food for the day became the primary activity for many, if not most, Cubans. At the Cuban Communist Party’s fourth Congress,

President Castro painfully listed the commitments unfulfilled by Cuba’s former allies:

As of September 30 [1992], we had received none of the rice, 50% of the split peas, 16% of the vegetable oil, 7% of the lard, 11% of the condensed milk, 47% of the butter, 18% of the canned meat, 22% of the powdered milk, 11% of the fresh and canned fish, 16% of the fertilizers, none of the sulphur . . .

Despite Cuba’s lying half a world away, its economy had been nearly completely dependent on the Soviet bloc. In 1987, for example, 88%



of Cuba’s trade took place with eastern Europe and the USSR. Generous trade agreements had allowed Cuba to trade sugar for oil—generating an enormous capital surplus which in turn permitted Cuba to make a sustained investment in industry, agriculture, health, and education.⁴ Thus for decades Cubans had the breathing space to circumvent the worst effects of the U.S. embargo against Cuba. After 1989 everything changed; without the aid of the Soviet Union, Cubans were left at sea.

Until the economic crisis, Cuban farms used proportional as many tractors as U.S. farms. Here sugar cane combines move from one cane field to another. [Roderick Sinclair]

Cuban Agriculture, Soviet-style

Cuban agriculture was particularly vulnerable. In the 1960s and 1970s the revolution had reshaped agriculture under the principles that the state is the central force and that mechanization would raise the dignity of human labor. Three-quarters of the arable land was held by large state farms, which predominantly produced a single crop: sugar. Agriculture depended heavily on chemical inputs. In fact Cuban farms used more fertilizer than U.S. farms (see chart below). Before the economic crisis Cuba imported 1.3 million tons of chemical fertilizers (Murphy, 1999); today the figure is not more than 160,000 tons (Gutiérrez interview, May 2001).⁵ Before the crisis, Cuba used 17,000 tons of herbicides, and 10,000 tons of pesticides (Murphy, 1999); today Cuba uses 1,900 tons (Gutiérrez interview, May 2001). Farms were also heavily mechanized at a level comparable to the United States. One cooperative president told the authors, “We had more tractors than we could use.” He added, “When the ministry told us to go to the port to pick up a new tractor, we said that we were too busy. We never went.”

Many have compared the Cuban model to the Soviet model of collective farms. Although there were similarities, unlike the Soviet Union, Cuba never forced collectivization and retained a high percentage of private farmers. Cuban agriculture was similar to both the

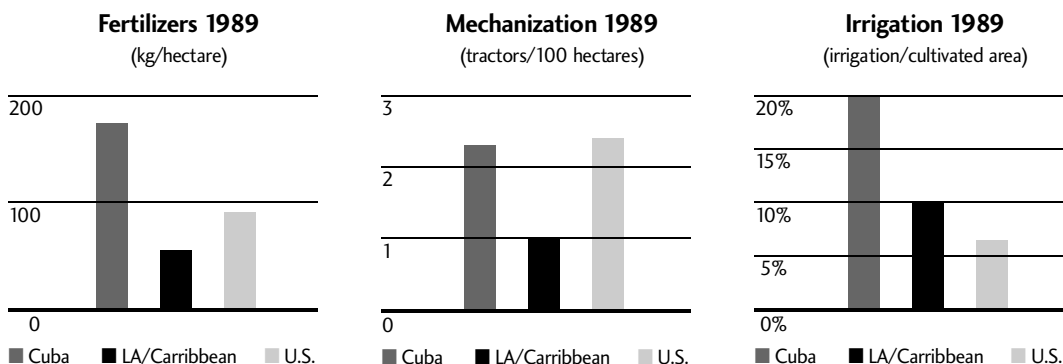


Soviet and U.S. models in that it was large-scale, oriented towards export, subsidized, heavily mechanized, and dependent on chemical inputs. This made the Cuban model extremely vulnerable to dramatic changes in the trade and aid environment.

Although the infrastructure for capital-intensive agriculture still existed, in 1990 the Cuban agricultural model began to collapse as one problem after another halted production. Imported inputs vanished—no chemical fertilizers, animal feed, tools, seeds, wire, or animal vaccines. Fuel for tractors and irrigation systems was practically unobtainable, as were tires or batteries or spare parts. Cuban-produced goods such as feed, pipes, tools, fertilizers, and pesticides dried up because of the same litany of problems: no raw materials, no electricity

During the crisis the Cuban diet has lacked proteins. Only those who could afford high prices could buy chickens, such as these sold in an open market in Santiago de Cuba

High Input Agriculture



(SOURCE: Pérez, p.77, based on 1995 FAO data)



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Steve Cagan]*

to run the factories, no functioning trucks, and no petroleum.

The rural economy in Cuba slowed and then practically stopped. Tractors stood useless in the fields, electric pumps went dry as crops wilted in the fields, and animals died or were slaughtered for food as their feed disappeared. According to the Economist Intelligence Unit's evaluation, the agricultural sector began to contract by 10.3% in 1992, then by 22.7% in 1993 and by 4.9% in 1994. By 1994, agricultural production had plummeted to 55% of its 1990 level. Production decline was only half the story. Without resources to distribute, refrigerate, or store them, crops spoiled or rotted in the field.

The impact on food security was disastrous. Daily per-capita caloric intake fell from 2,908 in 1989 to 1,863 calories in 1995, according to the USDA, and protein intake dropped by 40%. Some estimated that the average Cuban lost 20 pounds by 1994.

When developing countries go into economic free fall, such as Indonesia in 1998 or Ecuador in 2000, often the extremes deepen between the rich and the poor. The poor suffer more. There is usually no corresponding attempt on the part of the government to assess the situation, devise a plan for food security, and protect the most vulnerable. The result is social unrest, the collapse of governments, and a steady decline in the health and well-being of the people at the bottom of the scale.

Cuba's case has been strikingly different. First of all, the government held, despite the dire predictions. Throughout the worst years, 1993 to 1995, two basic government policies kept the food crisis from emergency levels: food programs for the vulnerable population (the elderly, children, and pregnant and lactating mothers) and the state food distribution system through the ration card (although drastically reduced compared to levels in the 1980s). Social unrest has been minimal even though the differences have increased between the have's and the have-not's in a society where those differences had been successfully reduced. Government policies and farmers' practices have revamped production and distribution systems and regained a basis of food security. This type of widespread change would be remarkable in normal times,

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but the fact that the Cubans were able to achieve it with the overwhelming shortages and scarcity of the economic crisis is unique and should be closely studied.

The strategies that the government adopted in the mid-1990s to reform Cuban agriculture were key in the recovery. However, these kinds of policy changes alone do not necessarily produce the results they did in Cuba. In fact, they have led to impoverishment in other countries. The reforms worked in Cuba because Cubans built on a stable rural sector, where small farmers maintained their land rights and where agrarian development policies produced a modernized peasantry unique in Latin America (see chapter II).

The Economic Cost of the U.S. Embargo

Cuban families will eat rice twice a day, yet Cuban farmers produce insufficient quantities for the demand. This meant that in 1999 Cuba imported 350,000 tons of rice, most of it from halfway across the world. But the cheapest rice is produced a few hundred miles away in Texas, Louisiana, and Arkansas. Because Cuba is denied access to its closest supplier, the producer of the highest quality and most inexpensive source of grains in the world, and the world's largest national economy, Cuba's trade costs are significantly higher.

According to a 1997 study by the American Association of World Health, without the embargo, Cuba could purchase grain from a U.S. supplier shipping from a U.S. port at

\$13 per ton. Instead, Cuba is forced to buy from Europe at \$25 to \$28 per ton—roughly twice the cost.

A 1999 study by the Relief and Rehabilitation Network, a British organization, estimated that U.S. sanctions have imposed on Cuba a virtual “penalty” of 30% on imports because of the increased purchasing and shipping costs entailed to avoid the U.S. embargo. What does this mean in terms of nutrition? Food imports dropped by one third from 1989 to 1994, the same period in which caloric intake dropped by 38%. Instead of being forced to pay this 30% penalty imposed by sanctions, if Cuba had been able to import 30% more food, the food deficit would have been erased.

The Teeth of U.S. Sanctions

As Cuba's economy began to spiral downward in the early 1990s, Cubans began to feel the effect of U.S. sanctions. The U.S. government tried to hasten the regime's downfall with the 1992 Cuban Democracy Act, which prohibited ships that docked in Cuban ports from entering U.S. ports for 180 days and which proscribed sales to Cuba by U.S.-owned foreign subsidiaries. The law ended \$500 million of U.S. sales to Cuba and effectively increased Cuba's shipping costs by 43% (American Association of World Health). As Cuba's economy plummeted to its depths, in 1996 the U.S. Congress passed the Helms-Burton law, which sanctioned companies of third world countries for “trafficking” in properties expropriated by the Cuban state, a category that could be applied extremely broadly.⁶

Measuring the precise impact of U.S. sanctions is tricky as it is often difficult to assess which of the myriad economic problems in Cuba are attributable to the U.S. embargo, which to the collapse of the USSR and eastern bloc, and which to long-term inefficiencies in the Cuban system. Cuba's island economy—in crisis and dependent on trade—makes it particularly vulnerable to punitive sanctions. Currently the annual import bill averages around \$700 million

in foodstuffs alone, and making food imports more expensive is part of the embargo strategy. But the U.S. sanctions have also made it more costly and sometimes prohibitive for Cuba to produce more food and agricultural exports. Cuba's intensive agriculture depended on high quantities of fertilizer, pesticides, spare parts, machinery, and fuel oil. Obtaining these supplies elsewhere was more expensive—at least 30% higher, according to the 1999 British report “The Impact of Economic Sanctions on Health and Wellbeing,” published by the Relief and Rehabilitation Network. In addition, the sanctions impeded critical linkages between financing, supplying, producing, processing, and marketing.

A number of reputable studies have found that the U.S. sanctions have caused suffering and even death. The American Association for World Health study on “Denial of Food and Medicine: The impact of the U.S. embargo on health and nutrition in Cuba” determined that “the U.S. embargo of Cuba has dramatically harmed the health and nutrition of large numbers of ordinary Cuban citizens.” The same British study found the U.S. sanctions responsible for 7,500 excess deaths each year through the depths of the crisis.⁷