

back, and the military training of the population to resist any attack or invasion (see *The Mobilized Population*, ch. 5).

### **Organization of Neighborhoods**

The Committees for the Defense of the Revolution (Comités de Defensa de la Revolución—CDRs) were created on September 28, 1960, as neighborhood mass organizations; one unit was to exist in each square block throughout all urban areas, and equivalent counterparts were located in rural areas. During the celebration of the twentieth anniversary of the CDRs in 1980, Castro claimed that Cuba had almost 81,000 CDRs organized in 10,000 zone committees representing a total of 5.4 million members; in early 1985 their numbers were estimated at 6.1 million. He also explicitly listed the CDR's main responsibilities, claiming that the defense of the Revolution "was, is, and will always be—and I repeat, was, is, and will always be—the first and foremost task, the first duty of the CDRs." In addition, CDRs were expected to assist the government in the process of politicizing and mobilizing their neighborhoods. In the field of public health they were to assist the government in both preventive and curative medical campaigns, including vaccination programs and blood donation drives. In the field of production, CDRs were expected to participate "voluntarily" in various kinds of agricultural work, including the sugar harvest. And, finally, in everyday life CDRs were expected to police their areas for purposes of both internal security and public sanitation. In addition to these responsibilities, as sociologist Nelson Victoria has claimed, the CDRs were also expected to conduct surveys for the rationing of food, distribution of homes, organization of volunteer work, elimination of the black market, and prevention of "counterrevolutionary" activities.

Evaluating the activities of the CDRs over the past 25 years, the previously mentioned OAS human rights report questioned whether the CDRs have permitted effective participation in the decisionmaking process. The report concluded that, on the contrary, the CDRs appear to be essentially an instrument of control, of "vigilance" against the enemies of the regime, a task that requires the sending of periodic reports to the Ministry of Interior. This argument was supported by the United States under secretary of state for human rights, Elliott Abrams, who claimed in 1984 that "no aspect of an ordinary Cuban's private life is free from government surveillance . . . one's comings and goings are monitored 24 hours-a-day by block wardens in the neighborhood CDRs. Meet-

ings, parties, and other activities are subject to particularly intense scrutiny. Listening to foreign radio and television broadcasts is dangerous because of the surveillance by CDR members." Various sources reported that any outsider who wished to meet with a local CDR member required the previous clearance of the provincial or national CDR coordinator; violators could be arrested according to the drastic stipulations of the so-called *peligrosidad* (dangerousness) law.

## **Organization of Women**

The Federation of Cuban Women (Federación de Mujeres Cubanas—FMC) was created on August 23, 1960, as a mass organization with the task of uniting, organizing, and enabling all women over age 14 to participate in the revolutionary process. Vilma Espín Guillois, a Rebel Army coordinator during the 1950s, wife of Minister of the Revolutionary Armed Forces Raúl Castro Ruz, and the highest-ranking woman in the Cuban government, was the organizer, founder, and the first president of the FMC. In mid-1985 she still held that post in addition to her other high government responsibilities (see *Mass Organizations*, ch. 4).

In 1980 it was reported that 2.3 million women over age 14, an estimated 80 percent of all Cuban women in that age-group, were *federadas*, that is, members of the FMC. By early 1985 this estimate had grown to 2.7 million. Describing the FMC's objectives, Espín suggested that Cuban women needed to unify and mobilize so that they could "defend, support and fight for the Revolution, which had . . . defined its populist and anti-imperialist character." In order to distance themselves from United States women's movements, FMC members insisted that their federation was a "feminine," not a "feminist," organization.

Among the stated purposes of creating the FMC was the freeing of women from such traditional prerevolutionary, sex-defined roles as prostitutes and live-in maids common in Havana in the 1950s. This was to be achieved by raising women's educational standards, enacting special legislation to emancipate women from their traditional roles, and providing them with a wide range of work alternatives. An example of these measures was the enactment on February 14, 1975, of Law No. 1289, the Family Code, which granted women new rights and opportunities in both the nuclear family and the labor force, thus protecting them from various forms of sex discrimination. The promulgation of this code was fol-

lowed by a massive attempt to incorporate women into the labor force (see Labor, ch. 3).

The FMC has played a very important role in raising both the educational and health standards, not only of women but also of Cuban society as a whole. Beginning in 1961 FMC members played a pivotal role as teachers in Castro's campaign against illiteracy (see Education, this ch.). Later the FMC designed various kinds of educational programs that included literacy courses, follow-up adult education programs, specially tailored courses to prepare women to enter the labor force, teacher training programs, and other courses intended to advance women in cultural and technical fields. In 1980 the FMC claimed that 1.5 million of its members had participated in the "militant mothers for education brigades," a volunteer program whose stated goal was "to bring up new men and women capable of furthering the construction of socialism."

The FMC has also played important roles in public health and national defense issues. The nation's health standards were improved through courses in health care and personal hygiene periodically given by the FMC's local cadres. Women's "health brigades" supported various maternal and child health programs of the Ministry of Public Health. The FMC defense programs included the integration of women into the FAR and the organizations of women in their workplaces (see Women in the Revolutionary Armed Forces, ch. 5).

Evaluating the results of 25 years of FMC activities, various sources claimed that the FMC had succeeded in increasing the political awareness of Cuban women and had partially succeeded in replacing the traditional female roles by more modern and liberal ones. Cuban women of the 1980s participated more actively at the intermediate and lower levels of Cuban society; only a handful of women held senior government and management posts, however. A severe breakdown of the traditional family had resulted from some of these revolutionary measures. The number of legal abortions and divorces had soared (some sources claimed more than tenfold) owing to, among other reasons, the breakdown of the nuclear family, more liberal sexual mores, inadequate supervision at coeducational rural boarding schools, and earlier marriages.

## **Organization of Small Farmers**

The National Association of Small Farmers (Asociación Nacional de Agricultores Pequeños—ANAP) was organized in May

1961 as the mass organization to represent and protect the interests of Cuba's small farmers. Farmers having units over 67 hectares were excluded. Authoritative sources suggested that ANAP was organized as the government's ally against what was then described as the "rural bourgeois sector, enemy of the Revolution," that is, the owners of agricultural units of between 67 and 400 hectares.

Since the passage of Cuba's 1959 and 1963 agrarian reform laws, the state has been the dominant factor in agricultural production. Between 1959 and 1984 some 79 percent of the nation's private land passed into state control. The remaining 21 percent stayed under the control of an estimated 100,000 families of self-employed small-scale farmers with limited means of production who were prohibited from hiring farm laborers. Although their holdings were under 67 hectares, they produced most of the nation's tobacco, coffee, vegetables, root crops, and fruits. Sugarcane was cultivated mostly on state farms. Private farmers, however, were forced to sell a prescribed quota of their production to a government agency at state-controlled prices. ANAP soon became the only entity through which the government channeled farm credit, agricultural inputs, and technical know-how to private farmers.

During the 1960s and 1970s the Cuban government undertook, with the assistance of ANAP, efforts to integrate subtly the nation's remaining private farmers into the revolutionary framework by incorporating them into collective units. Farmers were offered incentives to turn over their plots to the state, either during their active life or upon retirement. They were also encouraged to become active members of the new government-sponsored agricultural production, credit, and service cooperatives. Some sources, however, claimed that ANAP consistently sought to reduce government control over its members. An example of this was found in the small growth of the cooperatives despite strong pressure from the government.

Article 20 of the 1976 Constitution recognizes "the right of small farmers to own their lands and other means and implements of production"; the expression "private ownership of the land," however, is never used in Cuban legal codes. The 1983 OAS human rights report concluded that, under Cuban law, small farm property was only quasi-private, because owners did not fully enjoy the right of alienability. For example, small farmers could not sell their property without prior authorization from the state, which always reserved a preferential right in the purchase of agricultural land. Farms could only be inherited by relatives who worked them personally. Farms could not be rented, mortgaged, or worked by

sharecroppers. Finally, small farmers had to register with the Ministry of Agriculture and, for all practical purposes, become active members of ANAP.

During the mid-1980s ANAP continued to be influential in organizing small farmers into cooperatives and in influencing the selection of crops so that output would coincide with the nation's production plans. An undetermined number of farmers were reported to be cultivating the land illegally, either as sharecroppers or simply as tenants, and were not registered in the Ministry of Agriculture and did not belong to the ANAP. In 1982 the government began a campaign to identify them and, presumably, to change their tenancy.

At the celebration of the twenty-fifth anniversary of the 1959 Law of Agrarian Reform on May 17, 1984, Castro reported that there were 1,457 cooperatives that covered about 1 million hectares, or 56 percent of the small farmers' land. One of the incentives for joining a cooperative was the availability of government loans to purchase construction materials for housing. A second incentive was a social security system for cooperative farmers that was created in 1983.

## **The Organization of Youth and Students**

The Organization of José Martí Pioneers (Organización de Pioneros José Martí—OPJM) was the children's mass organization, similar to the Boy Scouts and Girl Scouts of the United States. At the twentieth anniversary of the OPJM in April 1981, the government claimed that 2.2 million children, or 99.5 percent of the nation's primary and basic high school student body were active members of the OPJM.

In 1983 the *Miami Herald* reported that in Cuba correct school behavior included belonging to the OPJM and, upon graduation, aspiring to join the UJC. It quoted Minister of Education José Ramón Fernández Álvarez, after claiming that all students received 240 hours of instruction in Marxism-Leninism by the end of the twelfth grade, as stating that "we teach what we believe."

On various occasions Castro has highlighted the important role Pioneers play in contemporary Cuban society. The OPJM was described by Castro as the first necessary step in the upbringing of Cuban children, a step that would help future generations discover the need to undergo military training. In his July 1983 speech, Castro said that "many Pioneers must be trained to become cadres or combatants of the Revolutionary Armed Forces, or of the militia

... because, as you know, our nation and our Revolution are not only defended by soldiers, they are defended by all the people, by our reserve troops, by the members of the Territorial Troop Militia.”

The promotion of OPJM activities throughout Cuba received high priority during the mid-1980s. As a result, the government sponsored the development of different kinds of training and recreational facilities that included Pioneer Scouting Camps, Pioneer Camps, Pioneers in the Countryside Camps, and Pioneer Palaces. These facilities were used, in the words of the official PCC newspaper *Granma Weekly Review*, “to create positive, social habits while simultaneously providing for the integral development of [pioneers’] personality as members of our socialist society.” Camps also served to reward deserving Pioneers. An estimated 250 of these facilities were reported to exist by 1984.

During the mid-1980s Cuba had two mass student organizations: the Federation of Intermediate Level Students (Federación Estudiantes de Enseñanza Media—FEEM) and the Federation of University of Students (Federación Estudiantil Universitaria—FEU). The government claimed that the goal of both of these organizations was to raise the educational standards of the Cuban student body, especially of those enrolled at intermediate and university levels, and to improve their political and ideological education. An important goal of the whole educational process was the creation of a “new man” willing to support and fulfill the needs of the Revolution, to live the principles of proletarian internationalism, and to defend the country. The fundamentals of Marxism-Leninism were taught to all federation members, and students received directives from the UJC through their federations. The president of the FEU was also a member of the National Committee of the UJC.

## **Health and Welfare**

Health care and general welfare activities were the responsibility of the state through its Ministry of Public Health. Only 53 of a national total of 20,545 physicians were reported to have private practices in 1984. The rest worked under the authority of the ministry. The health system was eventually administered from Havana through a large network of urban and rural hospitals, polyclinics, and related health facilities located in all 14 provinces. Mass organizations played an important role in supporting all preventive health care programs and in assisting medical and paramedical personnel in rendering their services. In 1985 it was estimated that



*Pioneers, Havana*  
Photo by Phillips Bourns

almost 100 percent of the national population was served by medical and health and health-related institutions.

At that time Cuba was one of the Western Hemisphere nations best served by health care and general welfare services and facilities. Cuba has enjoyed very high medical standards since the late nineteenth century. This tradition was continued by the Castro regime despite difficulties during the early 1960s that were generated by the exodus of more than 3,000 physicians and the temporary reduction in the supply of medical equipment and medicines. The 1960s and early 1970s were difficult years, when some health indicators deteriorated in comparison with prerevolutionary levels. However, health standards recovered and, in some cases, surpassed prerevolutionary levels because state budget allocations for health increased during the first 25 years of the revolution from 21 mil-

lion to 668 million pesos, massive vaccination campaigns were organized, and crash programs to educate medical personnel were launched. A national network of rural, regional, provincial, and national hospitals and polyclinics was built to provide universal free or low-cost medical coverage that included the dispensing of medication. Health care was reoriented from cure to prevention. Efforts were made to eradicate disease vectors, such as various kinds of mosquitoes, and also to upgrade the sanitary standards of previously neglected rural and urban areas. As a result, social and regional differentials in death and disease rates were reduced.

In 1983 the Ministry of Public Health reported it was operating a total of 273 hospitals, which included 92 general hospitals, 21 maternity hospitals, 29 maternal-infant hospitals, and 27 pediatric hospitals. In addition, it operated 396 polyclinics, 158 primary care units in rural areas, 85 homes for expectant mothers, 143 dental clinics, 65 homes for the elderly, and 14 homes for the disabled, which together were equipped with a total of 55,000 hospital beds. An estimated total of 20,545 physicians, more than 4,000 dentists, 35,000 nurses, and 34,000 mid-level paramedical technicians worked in these medical and dental facilities. Polyclinics were the cornerstone of the Cuban health system. They were outpatient clinics equipped with up to 30 beds, and each was staffed by a professional team that usually included a specialist in general medicine, a pediatrician, a gynecologist, one or two internists, a few nurses, and other support personnel. Preventive medicine through periodic vaccination campaigns against communicable diseases and campaigns to improve local sanitary conditions received the highest priority in these polyclinics.

The Ministry of Public Health was also responsible for training medical and paramedical personnel. In 1984 it was in charge of 18 medical schools, one or two in each province, which had reportedly graduated a total of 16,017 physicians in the 1960-81 period; 64 paramedical schools, which had reportedly trained almost 85,000 mid-level technicians, including almost 19,000 nurses; and 13 research institutes. It was also announced at the time that the standards of all local, municipal, and provincial hospitals were soon to be raised to enable all hospitals in the country to become teaching hospitals. In December 1982 the government inaugurated Cuba's largest and most sophisticated hospital, the Hermanos Amerijeiras Hospital, located in a 24-story building in downtown Havana, which was equipped with a computerized axial tomography (CAT scan) machine and 950 beds in 300 patient rooms. The hospital was to become the nation's major medical re-



search and postdoctoral training center, serving also as a referral center for all urban and rural hospitals.

In 1982 Cuban had 1,400 physicians, 52 dentists, 560 nurses, 469 technicians, and 32 other health workers in 26 Third World countries, including Nicaragua, Cambodia, Laos, Vietnam, and the People's Democratic Republic of Yemen (South Yemen). This number included 106 physicians who had finished their course work while in Nicaragua and eight who had done so while in the Western Sahara (formerly the Spanish Sahara).

Because of the lack of nongovernment sources of information during the mid-1980s, it was difficult to ascertain the standards that characterized the entire Cuban health system. Foreign scholars visiting Cuba lacked the independence to undertake freely any kind of empirical research, and they were usually escorted by government officials or by the local CDRs throughout their visits. Statistical information was readily available, but little was said about basic equipment at each medical facility, training center, or research institute. It was not clear what criteria were used to distinguish among a hospital, polyclinic, primary care unit, and infirmary, or between the Higher Institute of Medical Sciences, a provincial medical school, and a teaching ward within a hospital. Little information could be obtained regarding the availability of state-of-the-art laboratories, professional equipment, textbooks, reference books, professional journals, and other publications in each of the nation's 18 reported medical schools, nor was the status of the pharmaceutical industry clear. From reviewing the nation's health indicators, however, it appears that medical standards were generally high, at least at some facilities.

Cuba's 1984 infant mortality rate of 16 per 1,000 was among the lowest in the Western Hemisphere after Canada, the United States, Dominica, Grenada, and Martinique. The government claimed that this was the result of its efforts to reduce risks associated with pregnancy and childbirth by providing pregnant women with comprehensive prenatal medical care by opening a national network of maternity homes near hospitals, where mothers spent the last days of their pregnancies, and by guaranteeing professional maternal and child care to all. As a result, 98.4 percent of the deliveries took place in hospitals, and the maternal mortality rate (deaths resulting from complications of pregnancy and delivery per 10,000 live births) was reduced from 11.8 in 1960 to 3.2 in 1984. Infant mortality was reduced from 43.6 in 1962 to 16 in 1984.

In 1981 contagious and parasitic diseases accounted for 2.2 percent of all deaths in contrast to 13.3 percent in 1962. No cases of malaria, whooping cough, diphtheria, poliomyelitis, measles, tu-

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berculosis, or neonatal tetanus were officially registered since 1980, and only isolated cases were reported during the 1970s. The major causes of death during the 1980s had shifted from infectious, parasitic, and communicable diseases to degenerative diseases.

In 1984 it was reported that the major causes of death for children age one to 14 were accidents and violence, cancer, congenital abnormalities, influenza, pneumonia, and meningial infections. Suicide was among the major causes of death in the age-group of 15 to 49; its rate rose from 17.2 per 10,000 inhabitants in 1975 to 21.3 in 1980. Accidents, cardiovascular diseases (high blood pressure, arteriosclerosis, heart attacks, and strokes), cancer, and diabetes were Cuba's leading causes of death during the mid-1980s. These diseases, the government claimed, were the result of higher medical standards that had practically eradicated traditional causes of death, vastly increasing life expectancy to age 73.5 for men and age 75 for women and minimizing the incidence of preventable diseases.

The government continued trying to reduce the incidence of all disease by improving the nation's hygiene and related living habits. Mass organizations played a pivotal role in these efforts. In June 1984 the Cuban deputy minister of public health officially reported that Cuba had reached the primary health care goals set by the United Nations World Health Organization for its "Health for All by the Year 2000" program.

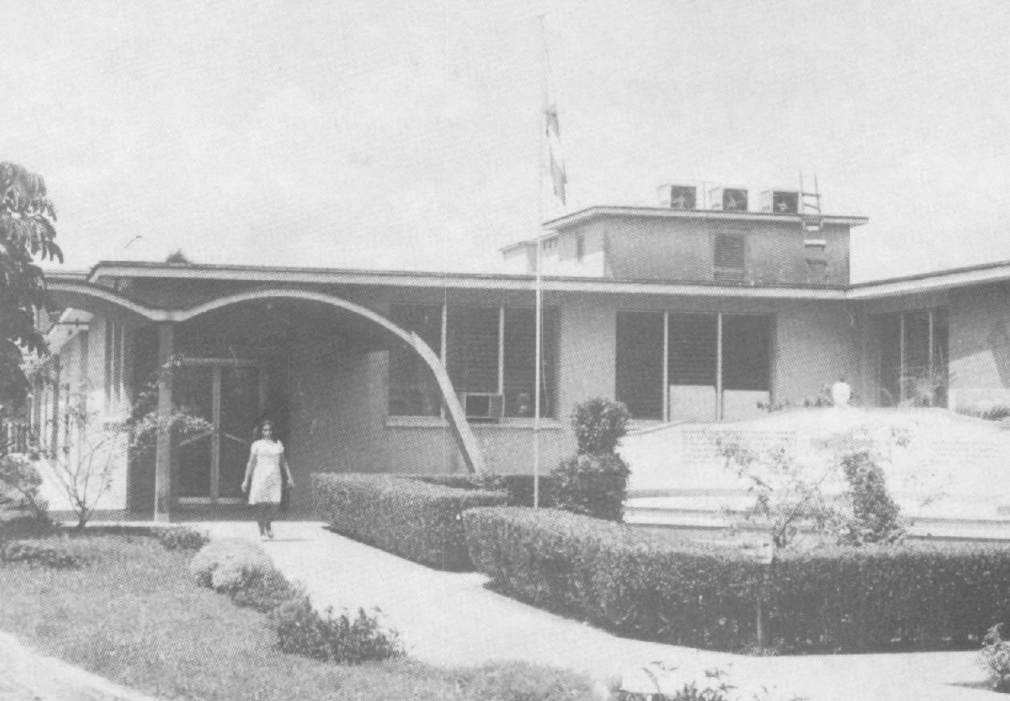
In 1982 the government reported that Cuba had 17,306 medical and 2,371 dental students. An additional 540 students were reportedly earning higher university degrees in nursing. Over 4,100 students were in their first year of medical school, while 2,124 were reported to be in their sixth, or last, year. Sixth-year students pursued internships that were followed by two years of rural work and, finally, specialization.

In February 1984 the Cuban government reported the beginning of a public health campaign called "One doctor for every 120 families," also known as the community or family doctor program. The program aimed to expand the range of health services by assigning one physician and a team of paramedics to serve an average of 120 families, or the equivalent of one city block. The experiment began in the Lawton neighborhood of Havana, where the Ministry of Public Health assigned 10 physicians to work full-time, offering routine and preventive medical care, home visits, counseling, patient referral to local hospitals, and related service to approximately 1,200 families living in 10 adjacent blocks. Physicians were to live in the community, hold office hours in the mornings,

and make home visits in the afternoons. Lawton's local CDRs were assigned the responsibility of providing 10 facilities, each within the jurisdiction of a single CDR, where the physicians would render their services. At the opening session of Cuba's October 1984 Pediatrics Congress, when Castro announced the campaign, he reported that 230 physicians were already participating in programs in neighborhoods as well as in factories and schools.

The Cuban government claimed the nation's overall health standards had also been raised through measures that improved the nutritional levels of social groups that were disadvantaged before 1959. During the early 1960s the government introduced a system of food rationing, still in effect during the mid-1980s, that allocated between 2,100 and 2,650 calories per day to each inhabitant. Rationed items included beans, rice, beef, cooking oil and lard, bread, dairy products, and other items. Other products were available outside the rationing system. There was controversy over how much the nutritional status of the population had improved. Some authors, such as Florida State University biochemist Antonio M. Gordon, claimed in 1983 that "Cuban nutritional data [were] subject to the whims of political committees which may control data collection, impose censorship, and . . . advise on the interpretation of political phenomena." Other sources, which included political scientist Howard Handelman and demographer Sergio Diaz-Briquets, reported the results of nutritional surveys undertaken during the late 1970s, which suggested that caloric intakes were adequate, although certain vitamin deficiencies existed, and claimed that the correlation between income and nutritional level had been greatly reduced despite lingering differences among the nation's various regions in ration-book allocations and food intake.

During the mid-1980s the social security system was the responsibility of the State Committee for Labor and Social Security and was funded from the national budget. No deductions were made from worker's salaries. Prior to 1959 about 52 distinct retirement funds covered less than 50 percent of the labor force. In 1963 these funds were merged, unified, and standardized into a single social security system that covered all workers. The average pension declined steadily in the 1960s, but it slowly increased after 1969, and by 1976 it was 11 percent higher than in 1959. Pensions were more equally distributed than before; for example, the ratio between the highest and lowest pension was four to one in 1978, as compared with 13 to one in 1958. Coverage for old-age, disability, and life (survivors') insurance increased from 63 percent in 1958 (the second highest in Latin America) to practically 100 percent in the late 1960s.



*Rural hospital*  
Courtesy Prensa Latina



*Working inside psychiatric hospital, Havana*  
Photo by Philip Brenner

In 1980 the system was subdivided into two branches: a new social security system and the social assistance system. The new social security system was to cover all workers and their families, while the social assistance system recognized the right of the population to request various kinds of financial and social aid, based only on need, from the municipal assemblies of people's power (see *The State Structure*, ch. 4). Free health and dental services, including hospitalization, rehabilitation, and maternity expenses, were universal. The right of working women to a total of 18 weeks of maternity leave with full salary, which included a 12-week post-birth, and the prohibition against working after the thirty-fourth week of pregnancy were prescribed by a 1974 law. Various kinds of financial and service benefits were also established in the 1980 law, which prescribed various kinds of disability, retirement, and survivors' pensions. In 1984 a special social security system for agriculture and livestock cooperatives was also established.

## **Religion**

Cuba was predominantly a nonreligious country. According to estimates made by the *World Christian Encyclopedia*, an estimated 49 percent of its population was agnostic and 6 percent atheist. Christianity, in the form of Roman Catholicism, Protestantism, and Cuban indigenous churches, was professed by 42 percent of the national population. Afro-Cuban cults accounted for 1.6 percent of the national population. Other non-Christian religions, such as Judaism, Buddhism, Islam, and various forms of organized high spiritualism, constituted only 1.4 percent of the population.

The Cuban government officially recognized and guaranteed the right of its citizens to profess a religious faith. This policy has been tempered in a number of ways. For example, during the First National Congress of Education and Culture held in Havana in 1971, it was concluded that the "religious phenomenon" should be considered secondary in the construction of a socialist society. Further protection of the Revolution from "obscurantist and counterrevolutionary sects" was also recommended at the time.

The right to religious freedom and worship in Cuba was clearly reinforced, however, in the 1976 Constitution. Article 54 recognizes and guarantees freedom of conscience and the right of everyone to profess and practice any religious belief. Any attempt to oppose the Revolution, education, work, or military service on religious grounds would be considered illegal and punishable by law. In practice, the official Marxist-Leninist ideology of the Cuban

regime precluded open expressions of religious faith and restricted membership in the PCC and in the UJC to nonbelievers. Consequently, believers were in effect excluded from most public sector posts as well as from higher education.

### **Crisis in Church-State Relations**

Church-state relations in the Cuba of the mid-1980s reflected a long process of deterioration within Cuban religious institutions that dates back to at least the early twentieth century. According to historian Margaret E. Crahan of Occidental College, religious practice in prerevolutionary Cuba was relatively weak. Among the reasons were the nominal nature of the religious commitment of Roman Catholics, the small number of Protestants and Jews, the noninstitutional nature of the Afro-Cuban syncretic cults, the institutional dependence of the various Cuban churches on their counterparts in Spain and in the United States, the concentration of church personnel and institutions in urban areas, and the emphasis given to institution building and elite education rather than pastoral duties. Crahan summarized major criticisms of the churches in pre-1959 Cuba by various world religious authorities, who pointed to their "elitism, lack of concern with socioeconomic justice, autocracy, preoccupation with financial matters, using charitable gestures to avoid confronting the structural bases of poverty and exploitations, cowardice in the face of political repression and corruption, overdependence on foreign and domestic political and economic elites, and failure to assume a prophetic role in a highly unequalitarian society. In addition, the churches were scorned for racism, pietism, pacifism, triumphalism, enclavism, puritanism, paternalism, individualism, and escapism."

A graduate of the highly respected Jesuit-run Belén High School in Havana, Castro acknowledged during his first weeks in power the assistance that he had received from the Roman Catholic Church in his struggle against the Batista government. He is often quoted as having said in January 1959 that "the Catholics of Cuba have provided decisive collaboration with the cause of freedom." The church's relations with the government deteriorated rapidly, however, as a result of various confrontations. These began with the promulgation of the first Law of Agrarian Reform on May 17, 1959, and continued with the establishment of diplomatic relations with the Soviet Union on May 8, 1960. The confrontations intensified when priests and members of the Havana-based Agrupación Católica participated in the Bay of Pigs invasion in April 1961 and

after the 1961 Law on the Nationalization of Education was promulgated. This trend culminated in September 1961, when a religious procession of several thousand protested against the régime, and the government reacted rapidly. Among its measures were the prohibition of religious processions, the deportation of over 100 clergy, the elimination of religious holidays, the introduction of athletic and indoctrination classes on Sundays, and the placement of severe restrictions on use of the mass communications media by all church groups. Some of these measures were still being enforced during the mid 1980s.

### **Gestures Toward a Rapprochement**

In the mid-1980s the period of open conflict between churches and the state seemed to have ended, and the government tolerated some church activities. This change resulted from the hard work of various religious authorities, including the president of the Protestant Evangelical Theological Seminary in Matanzas, Sergio Arce Méndez, and Archbishop Césare Zacchi, who had served as papal nuncio to Cuba from 1963 to 1975.

According to Arce Méndez, the future of Christian churches in Cuba "will depend greatly on whether we are able to have widespread biblical-theological education and create serious Cuban theology that is adequate to our specific situation." He was of the opinion the Cuban churches must first tend to their own sins, past and present, before railing against the sins of the revolutionary government. Thanks to him, since the mid-1970s Cuban churches have no longer criticized the government and have been encouraging their congregations to participate in various government-sponsored development programs, such as "voluntary" agricultural work. Zacchi similarly suggested during the late 1960s that Catholics should integrate themselves into the Revolution by participating in mass organizations in order to ease Christian-Marxist communication and introduce Catholic ideals into the Revolution.

The Cuban churches of the mid-1980s were qualitatively and quantitatively very different from those of the 1950s and 1960s. From a theological point of view, various church authorities seemed to have adopted new guidelines that encouraged Christians to seek the kingdom of God on earth by struggling for socioeconomic justice and by supporting movements and organizations that attempted to achieve it. Stress was laid on Christian commitment to the development of an egalitarian society. From an administrative point of view, most of the senior church authorities were native

Cubans who had been promoted to their current positions after 1959.

In December 1984 the PCC incorporated into the Secretariat the senior government official responsible for the office on religious matters. In late January 1985, for the first time since the worsening of church-state relations in the early 1960s, Castro received a delegation of Cuban Roman Catholic bishops and discussed with them various issues. Further implications of this new rapprochement were not initially clear.

By the mid-1980s the number of clergy of all faiths had declined, but those remaining were generally highly dedicated. Likewise, church members were also fewer in number but more committed. However, it was clear that Cuban Christians had to survive in a society in which government policies and the official ideology limited their activities.

## **Social Stratification**

A major goal of the Cuban Revolution has been to close the vast socioeconomic, racial, and geographic cleavages of pre-1959 Cuban society. During the 1960s the government committed itself to full employment of all eligible Cubans in both urban and rural areas; open unemployment was rapidly eliminated, but the phenomenon of "disguised unemployment" (people employed full-time in marginally productive work) became a national problem that translated into a sharp fall in labor productivity. In 1980 an estimated 4 percent of the labor force was unemployed, 59 percent of whom were women. This low figure might have been the result of several factors: the export of surplus manpower to work in Third World countries, the renewed expansion of the armed forces, the 1980 exodus of more than 125,000 people from the port of Mariel, authorization for free contracting of labor, and new government policies implemented in 1976 authorizing the private practice of some trades and professions. After 1982 the government, nevertheless, strongly attacked private sector practices.

Since the early 1960s nearly all income earned in Cuba has come from the government in the form of wages, the single largest exception being the small private sector in agriculture. Nonstate employment, concentrated in agriculture, represented 35.4 percent of total employment in 1962 but had been reduced to 6.6 percent by 1979. One purpose of the 1976 Constitution, according to Raúl Castro, was to "consolidate the socioeconomic system based on social ownership of the means of production, the end of exploita-



tion and the gradual disappearance of class differences.” The 1983 OAS human rights report, nevertheless, suggested the persistence of “various forms of discrimination in hiring on the basis of ideology or for related reasons.”

### **Income Distribution**

In 1963 the revolutionary government introduced a Soviet-style wage-scale system in an attempt to standardize all wages and to offer equal pay for equal work regardless of the enterprise’s productivity and profitability. Four labor categories were created, each with its own basic wage scale: farm workers; blue-collar workers; general service and government workers; and technical, executive, and senior personnel. In addition to the basic wage, the government considered rationing, subsidizing consumption, and free social services important elements of an individual’s income. The ratio of Cuba’s lowest to highest basic wage was made one to six, but basic wages could be increased by such means as overtime, extra payments for work performed under abnormal conditions, bonuses for exceeding work quotas, the “historical wage” (whereby some workers would receive the difference between the old prerevolutionary wage and the new wage), and other fringe benefits. As a supplement to their basic wages, senior government officials also had such fringe benefits as access to scarce consumer goods, use of automobiles, travel abroad, and access to housing.

During the mid-1980s most of the available published data on income distribution were estimates made by outside observers during the 1970s. Neither the Cuban government nor international agencies had published more recent information.

A 1981 study by economist Claes Brundenius included a study on the structure of income distribution based on various hypothetical estimates. Working with different hypotheses, Brundenius presented two estimates of real income distribution for 1978 and suggested that the real income distribution in 1978 lay somewhere between the two (see table 4, Appendix). The author noted, however, that although his data did not include bonuses, overtime pay, and other fringe benefits that were only introduced in the early 1980s—such as seniority pay and compensation for abnormal conditions, for night work, and for having to live away from home—these applied equally to all sectors of society and therefore did not drastically alter his conclusions. In 1984 the CTC reported that the number of workers whose pay was linked to the fulfill-

ment of quotas had doubled since the early 1980s and that over 10 percent of the workers received various kinds of compensations.

According to Brundenius, in 1978 the wealthiest 5 percent of the population received between 9.5 and 11 percent of the total national income. This category included senior government officials, foreign service officers, some professionals who enjoyed the privilege of having a private practice, acclaimed artists, and other groups with access to foreign currency. The poorest 10 percent received between 3.4 and 5.1 percent of the total national income. This category included poor peasants and shantytown dwellers in urban areas. Although poor, such people did not suffer from hunger, nor were they deprived of health care.

According to Brundenius, one of the main characteristics of the Cuban Revolution was the massive redistribution of income, "with the major transfer of income to the bottom quintiles during the first years after 1959 and with more moderate transfers during the latter part of the 1960s and 1970s." The incidence of poverty diminished, and income inequalities between rural and urban dwellers were substantially reduced. Although in the 1950s the average annual income of an agricultural worker was 92 pesos and that of a big landlord was over 40,000 pesos, during the early 1980s annual basic wages ranged from 984 pesos for the lowest-paid agricultural workers to 5,400 pesos earned by the most senior executives. During the early 1980s it was reported that there were very few Cubans earning less than 1,000 pesos per year and that there appeared to be a further narrowing in the gap between the highest- and the lowest-paid wages.

In 1984 the average wage was 176 pesos per month and, according to the Cuban government, an average individual spent 38 percent of his or her income on food, 11 percent on clothing, 11 percent on cigarettes, cigars, or alcoholic beverages, and the remainder on housing and miscellaneous expenses. Monthly rents ranged from 6 to 10 percent of total family wages, up to a high of 50 pesos, for a state-owned house.

### **Moral and Material Incentives**

During the early 1960s the Cuban government debated the best way to increase productivity. Two positions were clearly identified. The first, supported by Che Guevara, held that productivity and economic growth depended mainly on the heightened political consciousness of the "new man" and on central planning (see *The*



Photo by John Finan



*Housing varies greatly in both rural and urban areas*  
Photo by John Finan



Photo by John Finan



Photo by Philip Brenner

New Revolutionary Man, this ch.). The second, taken by Carlos Rafael Rodríguez and by the French economic adviser Charles Bettelheim, held that material incentives combined with the encouragement of capitalist market mechanisms and decentralization of planning would motivate people to work harder. Guevara's position predominated by 1964, and thereafter Cuba was operated as a single centralized government corporation that had a centralized budget and lacked cost accounting in each of its branch enterprises. Workers were rewarded with titles and decorations rather than promotions and salary increases. This was the result of a philosophy that assumed that workers would excel in response to higher levels of political motivation rather than to economic or material motivation. Financial and material incentives were to become things of the prerevolutionary past. Moral incentives, such as the honor of helping to build a socialist society, would spark the development of Cuba by raising the productivity of all the sectors (see *Radicalization of the System, 1963-66*, ch. 1).

Guevara's position proved to be a failure, however, and during the 1970s the government reversed its economic policies, gradually reinstating material incentives by linking wages with productivity. New production norms were established only after careful study of individual workplaces. These various measures led to much higher productivity (see *Institutionalization and Return to the Soviet Model, 1970-76*, ch. 1).

A national identify card still in use during the mid-1980s was introduced by the government in 1962 as part of its centralized planning policies. This card was essential to obtain or change employment and had to be on one's person at all times; it contained an employment record of its bearer as well as a record of the cardholder's "merits" and "demerits," such as his participation in work programs, comments on his political conscience, or criticisms resulting from his failure to meet production goals.

Socialist emulation, a quasi-formal government program intended to facilitate the implementation of the moral incentives, was also institutionalized in 1962 and still existed during the mid-1980s. Each government unit, from the most senior positions at a ministry level to the most junior sections of a factory or sugarcane plantation, was to compete with similar units in order to achieve higher working standards or quotas. The government acknowledged the outstanding production of these units by giving them pompous titles such as *brigada millonaria* (literally, millionaire brigade) for outstanding cane-cutting units. Also within each unit, competition was stimulated among workers through the periodic naming of the most productive member; the government rewarded these individ-

uals, sometimes with trips to Europe and other times with highly cherished consumer goods, such as electric appliances or private automobiles.

During the 1980s a new system of enterprise management was being implemented to reduce inefficiency and misallocation of resources. New government measures included the authorization in April 1980 of new "free peasant markets" where prices were often seven to ten times higher than in state stores. By 1984 bonuses, overtime, and other material fringe benefits were reportedly an important element of labor policies.

### **Mechanisms for Social Mobility**

During the 1980s the government claimed that Cuban society was becoming a classless society; little further reference was made to changes in social class or to mobility within the social strata. The income gap between agricultural and other workers and the gaps between urban and rural services and facilities had diminished. Social services had expanded more rapidly in the countryside than in the cities. As a result, educational and health facilities existed throughout the nation's 14 provinces, rendering services to virtually the entire population. Income differences tended to be less significant because the state employed more than 90 percent of the population, and the purchasing power of the population was severely restricted either by rationing or by the availability of products.

Cuban emigrants in the United States reported that social stratum existed that was closely related to membership in the PCC, to the position one occupied within the bureaucracy, and to access to scarce goods and information. A so-called *nueva clase* (literally, new class) consisting of senior PCC members replaced the old Cuban oligarchy in positions of social, economic, and political power. A closed group, its members were the same persons who took power in 1959, and they enjoyed most of the privileges that the Revolution had allegedly fought against. Members of this stratum tended to live in the mansions situated in Havana's posh Miramar neighborhood that were left behind by the exiles of the early 1960s. Scarcity of food staples and household appliances was almost nonexistent among the members of this group, and they were also exempted from rationing quotas and from waiting in line at the state-operated stores. Their children also enjoyed better, higher educational opportunities than those of the larger segments of the national population.

Social mobility was possible but was subject to certain government constraints. Opportunities did exist, especially to move from the lower levels of government up to middle levels, but depended not only on one's professional qualifications but also on whether an individual had proper revolutionary credentials. Revolutionary zeal expressed by participation in local militias, "internationalist" development programs, and on house-building teams called "micro-brigades" was essential in order to obtain higher education, better jobs, better housing, and access to scarce goods (see *The Role of Mass Organizations in the Process of Socialization*, this ch).

Geographical mobility, however, was severely restricted as a result of the comprehensive system of identification cards, food ration coupons, and designated shopping centers. Together with the urban housing shortage and the government monopoly of the job market, these measures constrained Cubans to remain at their habitual place of residence. As a result, those who attempted to change their place of residence found themselves unable to obtain a new job, house, food ration coupons, and designated stores. Geographic mobility, therefore, was only possible under government supervision.

The rural poor enjoyed a higher standard of living than did their Latin American equivalents. Cuban peasants, better known as *guajiros*, continued living in *bohios* (traditional dwellings originally dating back to pre-Columbian times), that is, in thatched roof huts built either of palm trunk boards or of palm bark. Their major source of income continued to be the land but, in contrast to the situation before 1959, the government guaranteed steady jobs throughout all 12 months and provided all rural areas with a sufficient number of schools and medical centers. Hunger and temporary unemployment had disappeared, and if their children took proper advantage of the system, they could easily rise on the nation's sociopolitical scale.

Nonsupporters of the revolutionary government became the new outcasts. Disdainfully called *cuadrados* ("squares"), *parásitos* (parasites), or *bitongos* (dandies), these people were supervised around the clock by their local CDRs and in many ways were treated as enemies of the Revolution. As a result, they experienced severe problems in obtaining jobs, food supplies, and adequate housing, and they continued to encounter difficulties throughout their intermediate and higher education. Their children also suffered discrimination at school and were usually not accepted in the local Pioneer scout troop. In a worse situation were former political prisoners, especially those who had been sentenced and served in prison on the grounds of having committed so-called counterrevolu-

tionary crimes. In addition to the restrictions and difficulties described, their identification cards had a stamp indicating their low status.

\* \* \*

A reasonable number of English- and Spanish-language publications on Cuban society are available; however, they reflect the distinct views of those who support the current system and of those who strongly criticize it. Unsupervised empirical research by independent foreign scholars was not possible in Cuba in mid-1985. Since 1970 the University of Pittsburgh's Center for Latin American Studies has been publishing biannually *Cuban Studies*, the most comprehensive, specialized professional journal on Cuban affairs. Since the mid-1960s Irving Lewis Horowitz' various editions of *Cuban Communism*, a collection of writings by authors representing various disciplines and points of view, have also offered one of the most comprehensive sources on Cuban society.

The government of Cuba periodically publishes in English various books, journals, and newspapers, many of which are available at United States libraries. Castro's lengthy speeches about various aspects of Cuban society and culture, illustrated by comprehensive statistics, are official policy statements and are one means by which the government releases current socioeconomic information. *Granma*, the official organ of the Central Committee of the PCC, has an international weekly edition in English—*Granma Weekly Review*—that is available in the United States. Its articles cover many diverse aspects of Cuban society.

Socioeconomic statistical information has been systematically published by the Cuban government's Comité Estatal de Estadísticas. The good quality of the data has been acknowledged by both the United States Bureau of the Census and the National Research Council. Non-Cuban sources of information include Patricia M. Rowe and Susan J. O'Connor's *Detailed Statistics on the Urban and Rural Population of Cuba: 1950 to 2010*; Paula E. Hollerbach and Sergio Díaz-Briquets' *Fertility Determinants in Cuba*; and Claes Brundenius' *Economic Growth, Basic Needs, and Income Distribution in Revolutionary Cuba*.

Other recommended sources of information include the daily edition of the *Christian Science Monitor*, *Miami Herald*, *New York Times*, and *Washington Post*, as well as the monthly or bimonthly *Caribbean Review*, *Cuba Times*, and *U.S.-Cuba Bulletin*. Periodical-

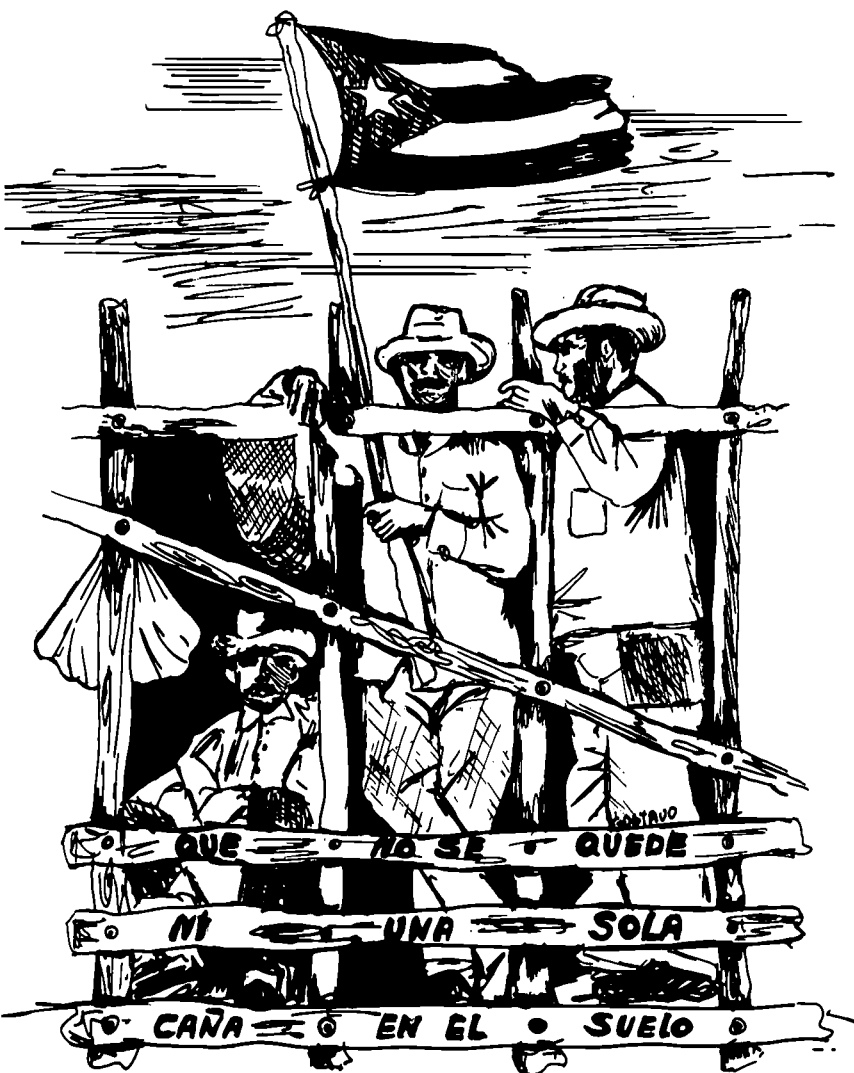


*The Society and Its Environment*

ly, these newspapers and magazines publish special reports on Cuban society. (For further information and complete citations, see Bibliography.)



### Chapter 3. The Economy



*Sugar workers on truck with slogan "Not a single stalk of cane should be left on the ground."*

IN THE MID-1980S CUBA possessed a highly planned and centrally directed economy. The government largely controlled the means of production and was almost the sole employer in the country. Basic public services were provided by the government, either free of charge or at minimal cost.

The viability of the Cuban economy continued to be tied to the output of sugar, which alone generated 75 to 80 percent of the country's export earnings, mostly in "soft" currency. Recent efforts to expand the output of sugar showed signs of limited success, and the government remained committed to ambitious production goals of 10 million tons in 1985 and 12 million tons by 1990. In 1984 over 60 percent of the sugarcane was harvested by mechanized harvesters, and almost 98 percent of the crop was loaded by mechanical grapplers. Citrus fruits and tobacco were Cuba's next leading agricultural exports. In 1984 Cuba was accepted as a member in the International Coffee Organization. Fishing for domestic consumption and export became increasingly important. The production of foodstuffs did not fare as well, however, and substantial imports of rice, wheat, flour, corn, beans, lard, and milk continued to be required.

Cuba ranked as the world's fifth leading producer of nickel, and its third nickel plant was scheduled to begin operation in 1985. In 1984 the production of crude oil had increased by more than two and one-half times over 1980 levels, and work began on the construction of the country's first nuclear power plant. In addition, revenues from tourism increased more than eightfold between 1978 and 1984.

Between 1980 and 1982 the government added a semblance of pragmatism and flexibility to the formulation of economic policy. The government introduced economic reform measures that included a general wage increase and the adjustment of retail prices, permitted state enterprises to directly hire and dismiss labor, allowed so-called free peasant markets to open, promoted decentralization and self-financing for state enterprises, and invited foreign firms to form joint ventures with Cuban enterprises.

In spite of these achievements, however, the economy continued to be affected by certain structural rigidities and exogenous variables. In mid-1985 the revolutionary government's goal of making the economy independent of foreign powers remained as distant as ever. In 1983 over 87 percent of the value of Cuba's trade was with socialist countries, while only 13 percent was with market economies. Imported crude oil and oil products from the Soviet Union provided about 97 percent of Cuba's total oil requirements. In 1983 the level of Soviet economic assistance was esti-

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mated to have totaled US\$4.2 billion, which was equivalent to US\$11.5 million per day and corresponded to 30 percent of Cuba's real output.

In 1983 sugar accounted for 81 percent of Cuba's total exports, compared with an average of 84 percent during the 1950s. Until the sharp fall in the world markets price for sugar in 1981, sugar had accounted for almost one-half of Cuba's hard currency export earnings. Cuban sugar exports during 1984 and 1985 confronted a world sugar glut, depressed world market prices that fell as low as US\$0.03 per pound, and a buyers' market that arose from the failure of producer countries to have reached a new international sugar agreement in 1984. Moreover, in world markets sugar was steadily losing ground to artificial sweeteners, corn syrup, and beet sugar. Nonetheless, in 1985 Cuba devoted huge resources toward meeting its sugar output target of 10 million tons.

The cyclical downswing in the price of sugar from 1981 to 1985, plunging hard currency exports earnings, high interest rates, and foreign credit cutbacks combined to precipitate a financial and economic crisis in Cuba during the early 1980s. The resulting lack of hard currency propelled Cuba to ask for a rescheduling of its US\$1.2 billion of principal payments that were due to Western bank and government creditors between September 1982 and the end of 1985. In 1983 and 1984 Cuba successfully rescheduled the portion of its foreign debt due in those years. In 1984 the Soviet Union also agreed to reschedule Cuba's estimated US\$8 billion foreign debt that was due between 1986 and 1990. The impact of the crisis and the subsequent austerity measures severely constrained domestic economic activity. Although industrial output increased somewhat, investment plans were deferred, and consumer goods shortages worsened. Concurrently, imports of Western machinery and spare parts required as inputs for domestic industry were curtailed. In addition, by 1985 Cuba had not been successful in attracting foreign investors to participate in joint ventures with domestic enterprises.

Although a semblance of reforms designed to decentralize economic decisionmaking were introduced during the 1980-82 period, observers believed that these were only implemented to resolve short-term constraints and that the prospect for further liberalization measures in the future was unlikely. The Cuban leadership was believed to fear that additional "reforms" would dilute the state's capacity to set and ascribe priorities to economic goals and objectives. Moreover, the political power of the state and its capacity to mobilize and transform society would be severely curtailed.

## **Growth and Structure of the Economy**

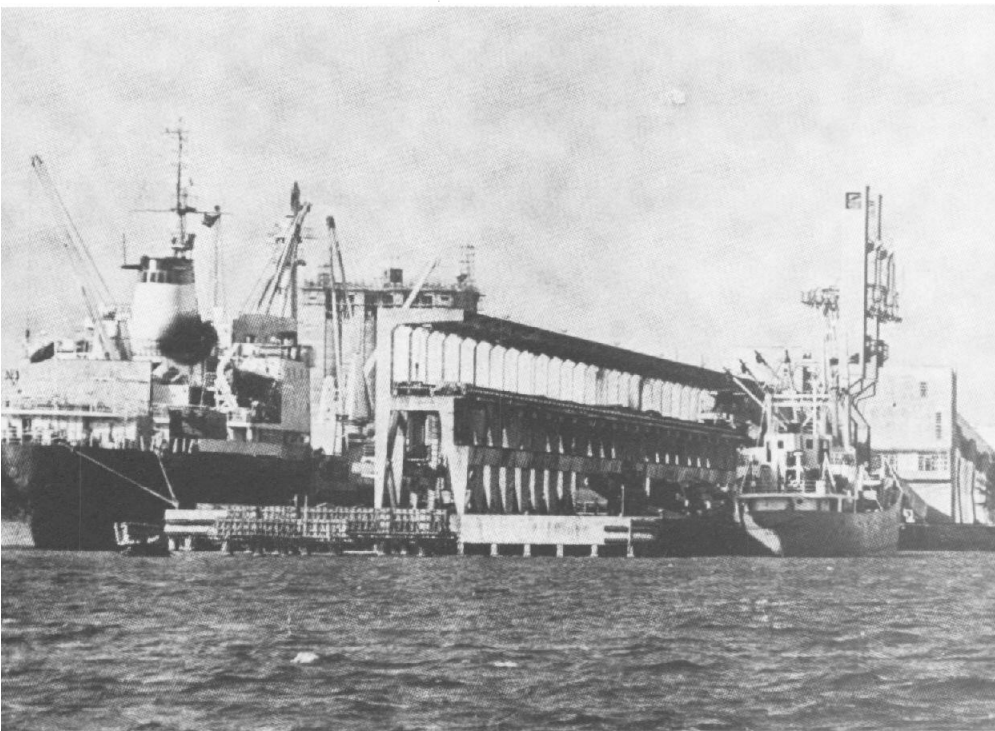
After 1959 Cuba did not use the concept of gross national product (GNP) or other Western national accounts measures for the total value of goods and services produced in the country. Instead, Cuba employed the Soviet-style concepts of global social product (GSP—see Glossary) and gross material product (GMP), neither of which was in accord with United Nations standards for measuring national accounts. The GSP was the most frequently cited growth measure and the only macroeconomic series published regularly. The GSP was divided into the material product and the nonmaterial product. The material product measured the output value of goods for agriculture, fishing, forestry, mining, industry, and construction. The nonmaterial product measured the value of transportation, trade, and communication services that contributed to the output of the material product. GSP did not include the value of such services as finance, public health, education, housing, sports and recreation, public administration, defense, and household services, which were classified in Cuban methodology as consumption. The GSP was smaller than the GNP because the value of services included in consumption are excluded. The GMP included the material product but excluded the nonmaterial product and consumption.

The process of aggregation in the calculation of GSP does not use the concept of value added, by which the additional value contributed in each stage of production and in the distribution of an item are recorded. Thus a considerable amount of double counting in the valuation of goods occurred in Cuba's national accounts. Moreover, the methodologies with which the data were calculated changed several times, and the government did not supply sufficient detail to connect the historical series. An additional complication was that the government system of controlled prices distorted the true value of goods and hence prohibited the computation of the rate of inflation. As a result, the value of industrial output in the GSP was greatly overestimated, and thus Cuban macroeconomic indicators were not considered to be very reliable. Nonetheless, official GSP figures were used as indicators of trends in the sectoral growth of the economy.

Between 1971 and 1975 the GSP increased at an average annual rate of 13.7 percent, partly as a result of recuperation from the low rates of growth in the preceding five-year period. Over the 1976–80 period GSP grew by only 4 percent annually owing to the

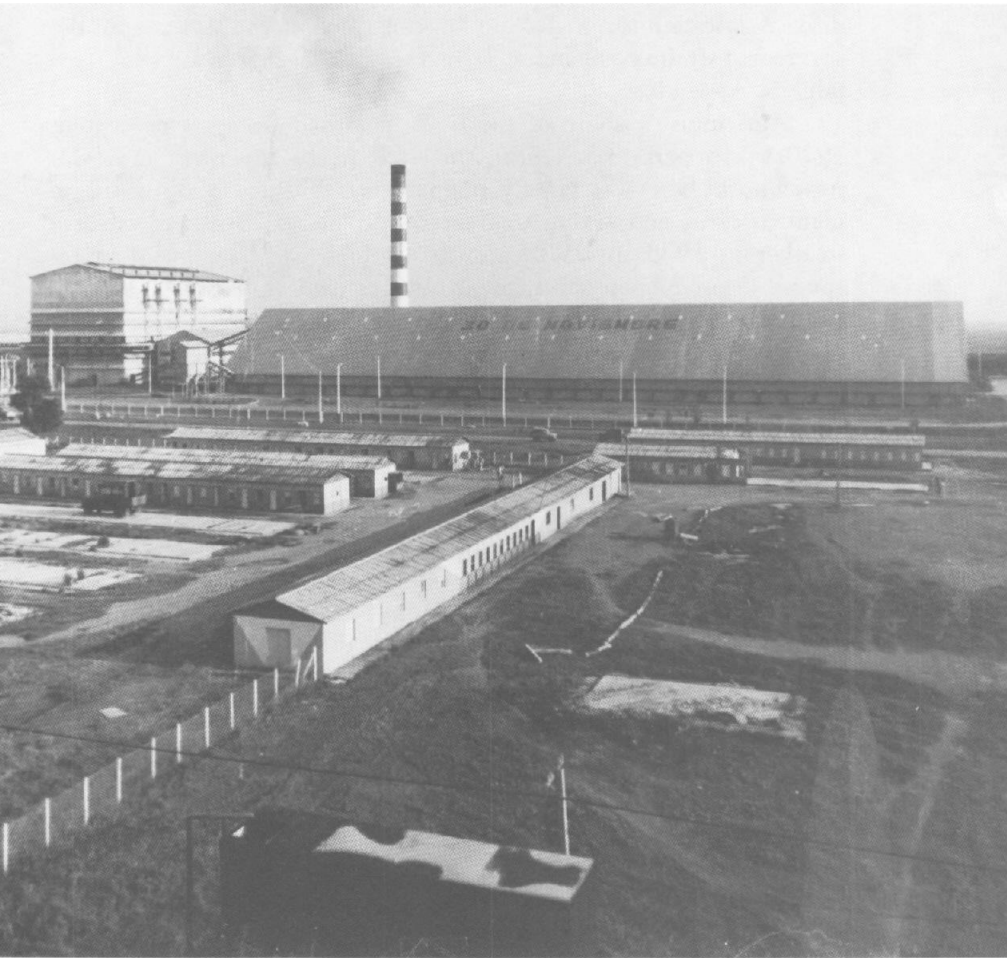


Photo by John Finan



Courtesy Prensa Latina





*Mechanical sugarcane harvesting (top left). Sugar loading dock at port of Guayabal (bottom left) and sugar mill in province of Pinar del Río.*  
Courtesy Prensa Latina

difficulty of maintaining the high rates that had prevailed in 1971-75.

Cuba's 1981-85 five-year economic plan projected an annual growth rate of 5.1 percent for the period. According to Cuban sources, the growth in GSP was 3.1 percent in 1980, then jumped to 15.6 percent in 1981, slowed to only 2.6 percent in 1982, increased to 5.2 percent in 1981, slowed to only 2.6 percent in 1982, increased to 5.2 percent in 1983, and climbed to over 7 percent in 1984. Reportedly, the GSP grew by a total of 28 percent between 1978 and 1983, but in 1980 and 1982 the economy fell short of planned growth targets as a result of adverse weather, crop disease infestations, a decline in construction in 1980, and the severe constraints engendered by the lack of hard currency (see table 5, Appendix).

Agriculture's share of the GSP increased from 14 percent in 1970 to 16 percent in 1980, then fell to 14.1 percent in 1983. Agricultural GSP was largely stagnant in 1980 and 1983 owing to plant diseases and severe weather conditions in 1980 and adverse weather in 1983. In 1982 growth declined by 2.5 percent in response to production shortages in several food crops. In 1981 agricultural output increased by 13 percent because of successful replantings of sugarcane and tobacco that were damaged from disease in 1980 and because of excellent weather. Livestock declined from 4.5 percent in 1981 to a low of 1.6 percent in 1982 and then increased by 5.8 percent in 1983. Government efforts increased the value of fish output by 18 percent over the period. The annual growth rate descended, however, from 28 percent in 1980 to 3.3 percent in 1983.

The share of industry (a category that included electrical energy, manufacturing, and mining) in the GSP increased from 4.8 percent in 1970 to 41 percent in 1980, then edged up to 42 percent in 1983. The electrical energy sector accounted for 2 percent of the GSP during the 1980-83 period, in comparison with 1.5 percent in 1970. The electrical energy sector expanded by over 15 percent in 1980 and 1981, then rose by 8.2 percent in 1982 and 3 percent in 1983. The generation of electricity expanded by 17 percent between 1980 and 1983, while the consumption of electricity increased by 10 percent. Approximately 84 percent of the electricity was generated by public electricity plants, 9 percent by sugar mills, and 7 percent by nickel plants and other local plants that were not tapped into the nationwide system (see Energy, this ch.). Industry consumed 45 percent of the electricity in 1983; sugar mills, 1.5 percent; commercial establishments, 23 percent; residential units, 28.5 percent; and other users, 1.4 percent.

During the 1980–83 period mining accounted for about 1 percent of the GSP. The output value of mining increased by 10.4 percent in 1981 over 1980, rose by only 2 percent in 1982, and increased by 9.6 percent in 1983 (see Mining, this ch.). The manufacturing share of the GSP decreased from 46 percent in 1970 to 38.4 percent in 1980, then increased to 39 percent by 1983 (see Manufacturing, this ch.). The share of construction in the GSP increased from 5.2 percent in 1970 to 8.3 percent in 1983. Construction activity declined by 2.2 percent in 1980, stagnated in 1982, and increased by 20 and 10.7 percent in 1981 and 1983, respectively. Increased construction activity in 1983 occurred partly because the output of construction materials, such as cement, bricks, tiles, glass windows, roofing materials, wood products, and plumbing pipes, increased after having declined in 1982. During 1983 the government constructed over 26,000 buildings and assisted in the repair of housing stock in the city of Havana. Nevertheless, there continued to be a severe housing shortage as new construction lagged far behind rising demand and construction efforts were concentrated in productive areas. In 1983 the housing shortage was estimated to have totaled 1.2 million units. An express railroad line connecting Havana and Santiago de Cuba was nearing completion in 1984. The new railroad would enable trains to travel at a speed of 140 kilometers per hour. Damage was also repaired on part of the railroad track in the sugarcane regions. Construction of a new railroad complex in Santiago de Cuba was expected to be completed in 1985 and connected to the national railroad system shortly thereafter. New railroad stations were also being built or refurbished. In 1984 work began on a new airport to be built between the cities of Varadero and Matanzas, as well as on a road linking the two cities.

During the 1980–83 period all the services in the nonmaterial sector had positive growth rates, except for transportation in 1982. Overall, Cuba had 10 main ports, of which Havana, Cienfuegos, and Mariel were the most important. The port of Havana handled over 60 percent of the nation's cargo. In the late 1970s and early 1980s the government added bulk cargo facilities to load sugar at the ports of Cienfuegos, Matanzas, Guayabal, Mariel, Boquerón, and Manzanillo. The Cuban national airline, Cubana de Aviación, Czechoslovak National Airline, and the Soviet airline, Aeroflot, flew cargo and passengers between Cuba and points in the Soviet Union and Eastern Europe. Commercial airlines from Canada, Mexico, Spain, and a few other West European countries provided air service to Cuba. The government planned to purchase 16 new commercial airplanes between 1981 and 1985 and to improve the

José Martí Airport, Cuba's major international airport, located in Havana. About 6,000 tons of cargo were transported on international air carriers in 1982, and approximately 4,000 tons were transported domestically. Moreover, about 895,000 passengers traveled by air in 1982, of which around 72 percent traveled to domestic destinations and 28 percent traveled abroad. Cuba was estimated to have about 12,000 kilometers of standard-gauge railroads and over 3,000 kilometers of secondary lines serving the sugar regions. Approximately 23 million passengers used the railroad system in 1982, and 18.2 million tons of cargo were transported. Historically, buses have been the leading mode of transportation. In the late 1970s only 80,000 passenger cars were estimated to be on the island. About 79.6 million tons of freight were transported by motor vehicles. The highway system was quite well developed and adequately maintained (see fig. 4).

## **Role of the Government**

During the 1970s the government realized the impracticality of its earlier development strategy and embarked on a more mature and pragmatic approach to the formulation of economic policy (see *Institutionalization and Return to the Soviet Model, 1970-76*, ch. 1). In 1976 the government introduced the Soviet-style System of Economic Management and Planning (*Sistema de Dirección y Planificación de la Economía—SDPE*), which was expected to be fully operational by the mid-1980s. The SDPE sought to maximize the efficiency of the economic system by improving the allocation and use of material, financial, and human resources. In order to accomplish these tasks the economic system reintroduced such market control instruments as prices, profits, taxes, credit, budgets, monetary guidelines, and interest rates. At the same time, a greater measure of decentralization, managerial discretion, material incentives, and limited market forces of supply and demand were adopted.

In 1980 the government restructured the Council of Ministers and dismissed several ministers. Four government ministries and two state committees were abolished, including those overseeing chemicals, construction and construction materials, the electric power industries, the mines and geology, and science and technology. In addition, the government created the Ministry of Basic Industry. Twelve ministers were replaced, including those responsible for foreign trade, agriculture, the sugar industry, the fishing indus-

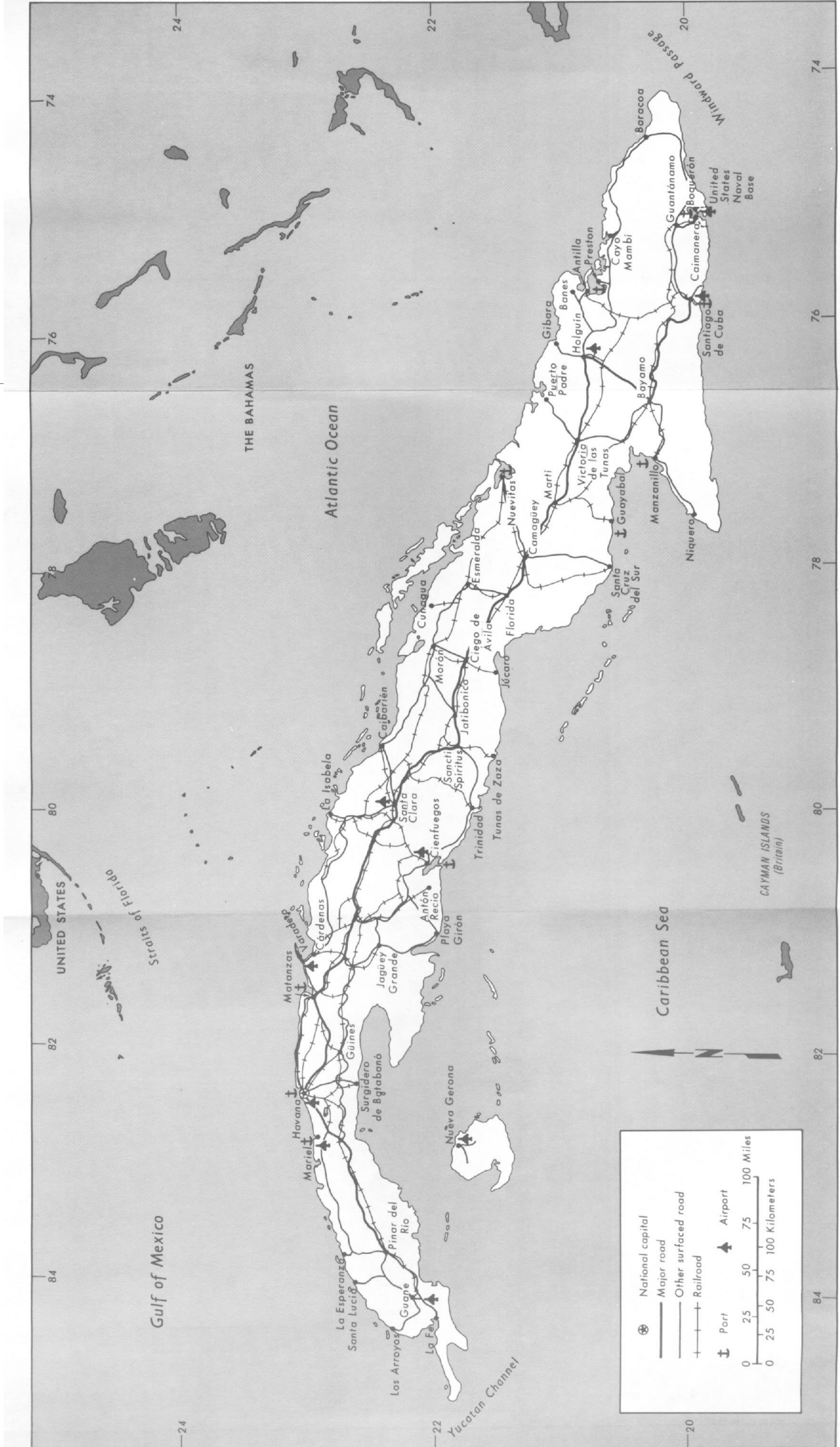


Figure 4. Transportation System

try, the steelworking industry, light industry, transportation, and labor and social security (see National-level Politics, ch. 4).

In February 1980 the government introduced a new accounting system that required all state enterprises, with the exception of those needing subsidies, to function under a system of cost-account projections whereby each productive unit was to account for a margin of profit after having covered its own expenditures from self-generated revenues. Failure to abide by this system would result in dismissals. In addition, enterprises were empowered to request loans and make autonomous investment decisions.

On March 25, 1980, in order to foster labor productivity, the government introduced a general wage reform that tied wages and benefits more closely to workers' qualifications and performance on the job, and bonuses were provided for surpassing normal output standards. The minimum wage was increased by 3 percent in 1980, 15 percent in 1981, 4 percent in 1982, and only 1.7 percent in 1983. In order to increase efficiency and output, the government's program of guaranteed job security was ended in November 1980 (see Income Distribution, ch. 2).

In 1980 state enterprises were permitted both to hire artisans and the self-employed and to dismiss substandard workers. At the same time, the government established so-called free peasant markets throughout the country that allowed individual farmers and cooperatives to sell their surplus output directly to the public at prices determined by supply and demand. In 1983 the government opened state-operated parallel markets that competed directly with the free peasant markets. Government plans called for the replacement of free peasant markets by government-controlled markets because private farming was scheduled to be completely collectivized into cooperatives and state farms by 1988.

In 1981 an extensive reform of retail prices was enacted. For the first time since 1963, the prices for 1,500 items sold in the retail market were increased by 10 to 12 percent. The intent of the price increases and free peasant markets was to eradicate "socialist inflation," or the amount of money in circulation, by curtailing demand through higher prices and by increasing the supply of foodstuffs through the markets.

The cabinet-level organization responsible for preparing the five-year economic development plans was the Central Planning Board (Junta Central de Planificación—JUCEPLAN). The National Bank of Cuba was responsible for supervising the plan (see Fiscal and Monetary System, this ch.). The 1981-85 five-year economic plan modified a few of the previous and overly ambitious goals, interjected a greater sense of realism into what was considered

achievable, and concentrated on completing existing projects. The government also acknowledged the important role that sugar played as the principal earner of hard currency, as well as the fact that the country's plans to diversify the economy were intimately linked to the success of sugar sales. This five-year economic plan emphasized the expansion of exports and the production of domestic substitutes for goods that had previously been imported. Sugar was to be expanded by 20 to 25 percent; electricity, 50 percent; fuel output, 10 to 15 percent; textiles, 50 to 60 percent; various chemical products, 30 to 50 percent; and fishing, 10 percent. Nickel extraction and refining, steel output, construction of housing, development of nuclear and thermal electrical capacity, and output of consumer goods were also targeted for expansion. Moreover, the level of Soviet scientific and technical assistance was scheduled to double during the period.

## **Labor**

Total labor force and unemployment data were not regularly published by the Cuban government; available Cuban statistics were based solely on state civilian and private employment, omitting the armed forces, police, and security personnel. Consequently, data on the labor force represented estimates of a reconstructed labor force composed of state, civilian, military, and private employees and the unemployed (see table 6, Appendix).

In 1984 the labor force was estimated to number 3.9 million, of which about 88 percent were employed in the state and private sectors, 8 percent were in the military, and 4 percent were unemployed. In addition, voluntary labor was used in the sugarcane harvest and in construction, but its net productivity had to be proved beforehand. The labor force participation rate (labor force as a proportion of the total population) stood at 39 percent. Over the 1970-80 period it had increased from 31 to 36 percent. The rapid increase in the participation rate resulted from the doubling of the number of young women who joined the labor force after completing primary or secondary education and the incorporation of new entrants into the labor market from the baby-boom generation of the early 1960s.

During the 1970s total employment increased at an annual rate of 2.7 percent, outstripping the 1.5 percent growth rate of the population. Concurrently, the number of men in the labor force increased at an annual rate of 1 percent, in comparison with 8 percent for women. The proportion of women increased from 18 per-

cent of total employment in 1970 to 30 percent by 1980. The 1981–85 economic plan sought to maintain a similar proportion of women in the labor force, and their incorporation expanded in response to the government's introduction of the Family Code in 1975, which increased the accessibility to contraception, equalized pay scales, reversed discrimination against promotions, provided maternity leave, and gave employed women preferential access to goods and services. In addition, free and compulsory primary- and secondary-school education, boarding schools, scholarships, and day-care centers shifted some of the child care tasks from the parents to the state.

Approximately 3.2 million civilian members of the labor force were employed in 1984, of which the state and private sectors accounted for 95 and 5 percent, respectively. The wave of nationalizations during the 1960s transferred a significant proportion of industries, small businesses, and private agricultural holdings to the state sector (see *The End of Prerevolutionary Institutions, 1959–60*, ch. 1). Thus, by 1970 state employment had increased to 86 percent of civilian employment. The gradual reduction of private agriculture during the 1970s further expanded state employment levels to about 93 percent by 1980. Private employment was largely confined to agriculture. Small numbers of private sector workers were also found in fishing, transportation, commerce, and services. Part-time employment in the private sector was practically eliminated in 1971 by the passage of the “antiloafing law”, which made full-time employment compulsory for adult males. Under this law the minimum age of employment was 17 for men and women, and the retirement age was set at 55 for women and 60 for men. All male citizens between the ages of 17 and 60 who were fit to work and were not enrolled in school were required to obtain employment or join the armed forces by the age of 17 (see *Social Stratification*, ch. 2).

Although no data were available on the number of self-employed workers, their participation in the labor force increased rapidly in the second half of the 1970s. In 1976 the government reversed an earlier ban on private economic activities and encouraged self-employment in services. Self-employment was legalized for hairdressers, manicurists, gardeners, taxi drivers, photographers, electricians, carpenters, auto mechanics, laundresses, tailors, seamstresses, shoeshine boys, and certain professional positions, such as dentists and physicians. Moonlighting after work hours and on weekends was permitted for state employees in occupations where manpower was in short supply. Others worked full-time in the private sector. Job applicants were required to register, obtain



a license, and pay a monthly self-employment tax on their income. In 1980 the system of free labor contracting was introduced, permitting the hiring of artisans and the self-employed. State enterprises were authorized to fire redundant or troublesome workers, to enter into contracts with persons having needed labor skills, and to be provided material inputs in exchange for 30 percent of the profit. The government recommended that the self-employed form cooperatives in order to facilitate the collection of taxes and ensure administrative control.

In 1983 productive and nonproductive activities were estimated to have contributed about 70 and 30 percent of total state civilian employment, respectively. Over the 1971–80 period the share of employment engaged in the direct production of goods declined slightly from 73 to 72 percent. The most significant change in the sectoral distribution of productive employment occurred in agriculture. During the 1970s the government policy of technological improvement and the mechanization of sugarcane cultivation was largely responsible for the reduction of 20,000 workers in the agriculture sector. Although industry (including mining, energy, and manufacturing) declined slightly from 21 to 20 percent of total employment, 107,000 new industrial jobs were created. Employment in construction actually increased from 6 to 10 percent of total employment. Commerce demonstrated a dynamic increase in employment from 8 to 11 percent. Transportation and communication declined from 8.5 to 7 percent. The productive sector accounted for a net increase of almost 450,000 jobs between 1971 and 1980. The largest employer in the nonproductive sector was social services, which included education, culture, and art. The second largest employer was in the category that included public health, social assistance, sports, and tourism.

Similar trends in employment occurred in the productive and nonproductive sectors between 1980 and 1983. During that period about 132,000 jobs were created in the productive sector and 55,000 in the nonproductive sector. Although forestry accounted for less than 1 percent of employment in 1983, the number of workers had increased by 35 percent since 1980. Employment in industry declined by 9 percent in 1983 after having increased by 26 percent between 1980 and 1982. Construction regained its dynamism in 1983 following the loss of employment for 12,000 workers during 1981 and 1982.

Although no recent information was available on sectoral employment by sex, it was apparent that during the 1970s women were concentrated in such traditional social service occupations as education, culture and art, public health, social security, sports and

tourism, and commerce. Men dominated agriculture, manufacturing, construction, mining, and transportation and communication.

In 1983 the unemployment rate was estimated at about 4 percent of the labor force. In the early 1970s the government's priority on full employment was supplemented by a goal to increase labor productivity. In 1971 the Soviet system of work quotas was reintroduced, and material incentives were substituted for the earlier concept of the "new man" based on moral incentives (see *The New Revolutionary Man*, ch. 2). At the same time that the emphasis on productivity precipitated the release of thousands of redundant workers, the government also reduced the size of the armed forces and of social services. Consequently, the low unemployment rate of 1.3 percent in 1970 increased to 3.4 percent by 1973. The problem was compounded by the increased number of young women who entered the labor market and by a rapid decline in emigration.

The government subsequently attempted to mitigate the problem of an expanded number of the unemployed by the adoption of several measures to reduce the size of the labor force. Retirement was made more flexible in 1971, certain service occupations that had been reserved for women were opened to men in 1973, and the number of jobs that had been restricted to men because of health or safety reasons was expanded in 1976. Furthermore, new industrial and construction projects were concentrated in the city of Havana and other urban localities during 1976–80, and work quotas were relaxed in agriculture and in other productive spheres, while underemployment continued to be widespread in the sugar agro-industrial sector. In addition, subsidies were paid to laid-off workers until a new job was obtained that was equivalent to 70 percent of their wages, the practice of hiring artisans and the self-employed in the private sector and state enterprises was legalized between 1976 and 1980, and the size of the armed forces was increased for military activities in Africa. Finally, the size of the labor force was reduced when laborers and professionals in abundant supply—such as construction workers, technical advisers, teachers, and physicians, dentists, and other public health personnel—were sent abroad to assist developing countries and to generate income transfers to Cuba.

In spite of these measures, however, the ranks of the unemployed increased to about 188,000, or 5.4 percent of the labor force, in 1979. The emigration of 125,000 persons from the port of Mariel in 1980 was believed to have reduced the unemployment rate to about 4 percent. Nevertheless, the future increase in the

labor force and the continued emphasis on labor productivity would continue to generate a labor surplus for the near future.

## **Industry**

### **Mining**

Cuba's nonfuel mineral resources included hydraulic cement, chromite, cobalt, copper, gypsum, iron and crude steel, lime, and nickel (see table 7, Appendix). In 1983 Cuba was the fifth largest producer of nickel in the world. Nickel reserves were estimated at approximately 19 million tons of ore with less than 1 to 1.4 percent of nickel content, representing about 10 percent of the world total. Nickel extraction, however, proved difficult because it was usually mixed with other metals such as iron, chrome, and cobalt. Nickel was produced in the form of oxide and sinter at the Nicaro and Pedro Sotto Alba nickel plants in the eastern province of Holguín. Nickel output during 1980-83 ranged from 38,000 to 39,000 tons annually.

After numerous delays, the new Punta Gorda nickel plant was reported to be about half completed in 1983. Upon completion, projected to be in 1985, the plant was expected to have an annual capacity for processing 30,000 tons of nickel oxides. The Nicaro plant was being modernized and was expected to have a final capacity for processing 22,500 tons of nickel-cobalt oxides annually. The Pedro Sotto Alba plant had a capacity of about 24,000 tons per year for processing nickel-cobalt sulfide. Construction of Cuba's fourth nickel plant, Las Camariocas, began in 1982. Construction was delayed, however, as resources were shifted toward completing the Punta Gorda plant. Las Camariocas was planned to be completed by 1990 and to have an operational capacity of 30,000 tons.

Nickel accounted for about 96 to 98 percent of all mineral exports during 1980-83. At the end of 1984 the Cuban government announced its intention to expand the output of nickel to about 100,000 tons annually by 1995 as increased supplies from the Punta Gorda and Las Camariocas nickel plants came on line. At the same time, the government indicated that it would be willing to export half of the output from the Punta Gorda plant to the West and the remainder to its Council for Mutual Economic Assistance (CMEA—also known as Comecon) trading partners. Nonetheless, during 1980-85 Cuba experienced difficulties in marketing its nickel to Western countries because of United States restrictions

that prohibited imports containing Cuban nickel. Almost 10 percent of the country's nickel earnings in 1983 were reportedly in hard currency from sales to Western countries.

Iron ore reserves were estimated to be as high as 7 billion tons of laterite and 100 million tons of magnetite. Output of iron and crude steel amounted to an average of 322,000 tons during 1980-83. Iron output was used most often on a small scale at local foundries. The José Martí steel plant was being refurbished to increase the annual output capacity of crude steel to 675,000 tons. Cuba's Comecon partners were considering the possibility of building a plant to produce stainless steel in Cuba. Nonetheless, the island was forced to rely on increased amounts of foreign steel. Steel imports from Japan climbed from 578 tons in 1980 to almost 2,200 tons in 1984. Reportedly, Cuban imports of Japanese steel had risen to almost 2,000 tons between January and April 1985.

Cuba produced copper at the Matahambre mines in Pinar del Río province for over 70 years. Matahambre produced about 2,500 tons annually of ore containing 18- to 30-percent copper concentrate. According to the 1981-85 national economic development plan, Cuba's newer copper mines, at Júcaro and Grande, were expected to produce about 4,000 tons annually.

In 1983 Comecon reported discoveries of Cuban deposits that contained lead, zinc, copper, molybdenum, chromite, and phosphoric ores. Neither the size of the deposits nor their locations were announced.

## **Manufacturing**

During the early 1980s industrial expansion was constrained by the need to import vital inputs of fuel, raw material, and capital goods. In order to finance imports the government was forced to rely either on earnings from foreign trade or on increased foreign borrowings. Manufacturing activity reflected the overall economic contraction that began in 1981 after the sharp fall in the world market price for sugar. Between 1980 and 1982 imports from the West declined by 40 percent. In 1983 total hard currency imports from the West increased by only 6 percent, and intermediate goods imports increased by 25 percent, while imports of machinery and spare parts declined by 31 percent. These imports enabled some idle industrial capacity to renew operations, but not sufficiently to run at full capacity.

Manufacturing's share of GSP grew by only 1.6 percent in 1980, jumped by nearly 18 percent in 1981, rose by only 2.8 per-

cent in 1982, and increased by 4.8 percent in 1983. The share of manufacturing in the total industrial product diminished from 45.5 percent in 1970 to 38.4 in 1980 and inched up to 39 percent in 1983 (see table 8, Appendix).

Within the manufacturing sector, consumer durables and capital goods demonstrated the best performance between 1980 and 1983. Growth in this subsector was led by the manufacture of non-electrical machinery, which included the production of almost 2,000 sugarcane harvesters of the KTP series during the period. In 1983 the output of buses recovered after having fallen by 35 percent in the previous three years. Production of electrotechnical and electronic goods increased rapidly in 1981 and 1983 but fell in 1980 and 1982. Within this group of products the number of radios expanded by 1,000 units between 1980 and 1983; television sets increased by 93 and 80 percent in 1981 and 1983, respectively, and declined by 23 and 35 percent in 1980 and 1982, respectively; and the output of refrigerators increased only in 1981.

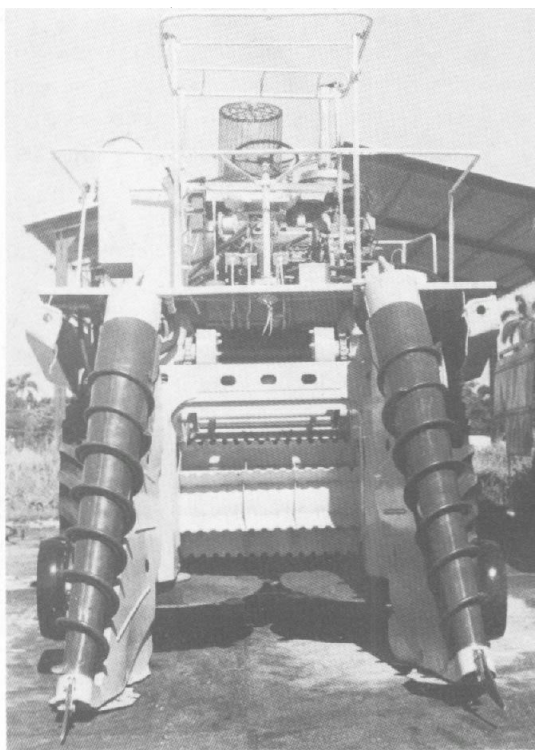
Among nondurable consumer goods, the production of foodstuffs maintained the highest output levels. Wheat flour made the greatest contribution to output. Approximately 1.4 million tons of flour were produced during 1980-83. Fruit and vegetable products expanded by 26,000 tons over the same period, partly as a result of the completion of two fruit-juice bottling plants having a combined capacity of 40 tons per hour and the Jagüey citrus plant, which had the capacity to produce 28,000 tons of juice and concentrates. Canned meat products increased from 35,000 tons in 1980 to 58,000 tons in 1983, and the output of fish increased by 12,000 tons between 1980 and 1983. The production of sugar and sugar by-products fell in 1980 and 1983 but grew by 16 percent in 1981 and only 3.2 percent in 1982. In addition, the milling capacity for sugar increased as three new mills became operational in the provinces of Camagüey, Granma, and Cienfuegos in 1983, as the modernization of the Amanico Rodríguez mill was completed, and as the Ecuador sugar complex was refurbished. Other nondurable items whose production grew notably were alcoholic beverages, which grew 45 percent between 1980 and 1983, and clothing, which increased from 44 million pieces in 1980 to 52 million in 1983.

Among intermediate goods, the production of textiles was expected to increase by 70 percent between 1981 and 1985 over the output of about 250 million square meters between 1976 and 1980. Cement production in 1983 was 3.1 million tons, compared with 3.2 million tons in 1982 and 3.3 million tons in 1981. The 1985 target of 4.5 million tons of cement was unlikely to be



*Agricultural implements factory, Holguín*  
Photo by Philip Brenner

*KTP cane cutter,  
manufactured in Holguín*  
Courtesy Prensa Latina



achieved even if the nation's largest cement plant comes on line in the mid-1980s. The production of fertilizers was 1.08 million tons in 1983 in comparison with 1.06 million tons in 1980. Development plans called for the rebuilding of Cuba's largest fertilizer plant in Cienfuegos Province. The completion of this plant was crucial in reducing the costly importation of fertilizers required by the sugarcane crop. Sulfuric acid output declined from 402,000 tons in 1980 to 370,000 tons in 1983. Ammonia nitrate declined from 312,000 tons in 1980 to 175,000 tons in 1983. The production of urea increased from 16,000 tons in 1980 to 32,000 tons in 1983.

## **Agriculture**

### **Crops**

In the early 1980s sugarcane was the principal agricultural crop, but numerous other items were also cultivated (see table 9, Appendix). In 1982 almost 70 percent of 2,373,300 hectares of cropland were devoted to the cultivation of sugarcane. Although sugarcane was grown in all provinces, the five leading producers were Camagüey, Matanzas, Villa Clara, Ciego de Avila, and Holguín. Approximately 82 percent of the crop was cultivated by the state sector and 18 percent by the nonstate sector.

Since the failure of the 1970 sugar harvest to meet the output target of 10 million tons, the government has scaled down the size of annual production goals. Nonetheless, subsequent output targets often fell short. The output target for 1980 had been set at 8.7 million tons, but an infestation of sugarcane rust severely damaged the crop, and only 6.6 million tons of sugar were produced. In 1981 output grew to 7.3 million tons but fell short of the official target of 8.6 million tons owing to the need to replace the diseased variety of sugarcane at the end of the 1980 harvest. The 1982 harvest of 8.2 million tons was the second largest on record and surpassed Cuban expectations by almost 1 million tons. In 1983 the sugarcane harvest fell to 7.1 million tons as the crop was adversely affected by torrential rains and winds. In 1984 Cuba had to revise its original sugar output target of 9 million tons downward to 8.2 million after poor weather made it unlikely that the goal could be reached. In July 1984 Castro announced that sugar output had reached 8.4 million tons. Unofficial estimates, however, ranged from 7.3 to 8 million tons. Cuban officials insisted that its ambitious 1985 output goal of 10 million tons was achievable.

The likelihood of meeting the 1985 target was complicated by problems associated with the extension of the 1984 harvest beyond the usual April cutoff date. Torrential rains between January and April 1984 prevented mechanized cane harvesters from operating in the muddy fields, and manual cane cutters had to be employed to make up a shortfall of about 1 million tons of sugarcane. Normally, weeding, fertilizing, and planting take place during May and June in order to ensure a bountiful harvest in the succeeding year. At the end of June, however, only 77 percent of the sugarcane area had been planted. Moreover, effective weeding of the fields was hindered by inadequate quantities of imported herbicides owing to hard currency constraints.

Nevertheless, Cuba's efforts to increase the production of sugar over the 1980-85 period were impressive. Despite torrential rains that idled the fleet of KTP-1 mechanical harvesters and reduced yields, Cuba achieved an expansion of sugar output. In addition, Cuba strove to develop the sugar sector in a more deliberate fashion during the early 1980s. During the 1984 harvest almost 62 percent of the sugarcane was cut by mechanical harvesters, and about 98 percent of the cane was loaded by mechanical grapplers. At the same time, only 80,000 persons were employed to cut the cane in comparison with 350,000 in 1970. In the early 1980s an improved version of the KTP-1 mechanical harvester was being tested, and about 65 of the new KTP-2 harvesters were expected to be used during the 1985 harvest. Moreover, 26 of Cuba's 152 sugar mills were being modernized, and four new ones were being built. Sugarcane by-products were also being used increasingly as animal feed supplements, as fuel, and as part of the production of syrups, yeast, alcohol, and paper.

Tobacco was Cuba's second largest agricultural export. In 1979 the tobacco crop was ravaged by the blue mold fungus that had the potential of destroying a tobacco plantation in only 72 hours. By March 1980 practically all of Cuba's tobacco crop had been destroyed, and only 8,000 tons were produced in that year. Tobacco recovered faster than expected, and in 1981 about 53,000 tons were produced. Output fell to 45,000 tons in 1982 owing to drought and flood damage. In 1983 severe weather decimated the crop, and production fell to 30,000 tons. Emergency replantings enabled the 1984 output level to rise to 45,000 tons. Approximately 71 percent of the tobacco crop was cultivated by nonstate sector farmers between 1980 and 1982.

Rice was an important staple of the Cuban diet. In 1968 the government launched a program to make the country self-sufficient in rice. By the mid-1980s rice output had increased by 35 percent



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since the start of that program, but substantial amounts still had to be imported. The production of rice increased from 478,000 tons in 1980 to 518,000 tons in 1983. Over 92 percent of the rice crop was cultivated by the state sector. In addition, the country owned 87 plants for drying the rice crop and about 30 mills having the capacity to handle about 20,000 tons of rice per day. From 1980 to 1983 an annual average of 210,000 tons of rice had to be imported.

In keeping with the government's goal to diversify exports, Cuba sought to develop its citrus fruit. The government established an output target of 1.3 million tons by 1985 and planned to export half of the total. Matanzas Province was the leading producer, cultivating over 80,000 hectares. Almost 83 percent of the citrus fields were cultivated by the state sector. Citrus output increased from 444,000 tons in 1980 to 631,000 tons in 1983. Output in 1984 was expected to reach 650,000 tons, about two-thirds of which was destined for export. Cuban production plans called for an increase to 2.5 million tons by 1990, of which 60 percent would be exported to Comecon member countries. Oranges accounted for 63 percent of the citrus crop in 1983 and grapefruit for 26 percent.

During the early 1980s coffee became an increasingly important crop. The production of coffee increased from 19,000 tons in 1980 to a record of 29,000 tons in 1982 and declined to 26,000 tons in 1983. The government established an output target of 46,000 tons of coffee by 1990. Approximately 52 percent of the coffee crop was produced by nonstate farmers between 1980 and 1983. In 1984 Cuba gained membership in the International Coffee Organization.

Beans and corn were also important staples of the population. Between 1980 and 1983 corn output increased by 30 percent to 30,000 tons. At the same time, beans increased by 44 percent. Nevertheless, Cuba could not produce sufficient quantities of corn and was forced to import over 1.6 million tons during the 1980-82 period. The production of root crops declined by 8 percent over the period, and vegetable production rose by 75 percent between 1980 and 1981, then declined by 22 percent in 1982.

### **Livestock**

During the 1980-82 period there was an annual average of 5.1 million head of cattle in Cuba. Of that total, the state sector accounted for 3.7 million and the private sector for 1.3 million head of cattle. Despite efforts to expand the herd during that



*Tobacco and dairy farming*  
Courtesy Prensa Latina

period, its size largely remained below the annual number recorded in the previous 20 years. Cows accounted for 3.4 million head of cattle, or 67 percent of the total. The state and private sectors held approximately 76 and 24 percent, respectively, of the total cow stock. About 17 percent of the total cow stock were calves, 23 percent were heifers, 47 percent were mature cows, and 13 percent were older cows. The remaining 1.7 million head of cattle included oxen and bulls for various uses. Although cattle were raised throughout the country, the largest producers were the provinces of Camagüey, La Habana, Villa Clara, Granma, and Pinar del Río.

There were many state cattle ranches where intensive stock raising was practiced. The methods included rotation of pasture, artificial insemination, crossbreeding, and supplemental feeding. In the second half of the 1960s the government attempted to develop a new breed of cattle by crossbreeding native zebu cattle with imported Holstein and Brown Swiss to improve the output of milk. The result was two new breeds called F-1 and F-2. In 1982 there were 122,100 F-1 and 215,600 F-2 cows that were the offspring of zebu and Holsteins and 40,800 F-1 and 67,800 F-2 cows that were the result of crossbreeding zebu with Brown Swiss. These breeds represented approximately 70 percent of the state sector's 636,000 dairy cows in Cuba. Although there were no historical series to compare milk yields of the various breeds, it was apparent that the zebu-Holstein progeny had a higher yield than did the zebu-Brown Swiss. Overall, an average of 417,000 cows produced milk in 1982, or almost 5 percent more than in 1980. These cows yielded an average daily output of 6.1 kilograms of milk each, totaling 929,000 tons annually. Provisional data indicated that milk output in 1983 had increased to 948,000 tons, or 6 percent more than in 1980. The domestic production of milk only supplied about 30 percent of national milk consumption, however, and the remaining 70 percent was obtained through imports of powdered milk.

An annual average of 900,000 head of cattle were slaughtered for consumption during the 1980-82 period. Approximately 44 percent of the cattle sent to slaughter were cows and heifers, 39 percent were bulls, and 17 percent were in a miscellaneous category. The slaughter weight of the first group averaged 330 kilograms over the period, and the second group weighed 350 kilograms at slaughter. The average slaughter weight for both groups increased by only 2.8 percent between 1978 and 1982.

From 1980 to 1982 approximately 300,000 tons of meat were supplied by the slaughterhouses. Of that total, about 284,000 tons were destined to meat-packing plants, 5,100 tons were sold to the public, 300 tons were distributed to various organizations, and

10,300 tons were consumed or distributed by persons at the slaughter sites.

In 1983 there were 867,000 hogs held by the state sector in comparison to 765,000 in 1980. An average of almost 1.2 million piglets were born each year over the period. The mortality rate per 100 hog births declined from 11 percent in 1980 to 9 percent in 1982. The number of hogs slaughtered for consumption was 747,000 in 1980 and 934,800 in 1982. The average slaughter weight was about 78 kilograms, which was similar to the weight that prevailed in the second half of the 1970s. The higher slaughter rates enabled the consumption of pork to rise from 58 tons in 1980 to 72 tons in 1983.

Significant improvements were noted in poultry and egg production between 1980 and 1982. The number of chickens ranged from a high of 24.6 million in 1980 to a low of 23 million in 1982. Of that total, approximately 8.3 million were layers selected for their reproductive capacity, 5.5 million were layers that were to serve as replacements, and 7 million chickens were raised for eventual consumption. The production of poultry meat declined from 91,000 tons in 1980 to 80,000 tons in 1983. The number of eggs, however, increased from 2.3 million in 1980 to 2.5 million in 1983.

### **Fishing**

The fishing industry expanded considerably from 1959 to the mid-1980s. The annual fish catch increased from about 25,500 tons in 1958 to 251,000 tons in 1983. Production increased by 168,000 tons between 1958 and 1974 before declining by 13 percent to 143,000 tons in 1975. Output fluctuated yearly during the second half of the 1970s. The fish catch increased by 35 percent in 1976, declined by 5 percent in 1977, increased by 15 percent in 1978, declined by over 26 percent in 1979, and increased by 20 percent in 1980. Although the fish catch improved slightly in 1980, it was 7 million tons below the level of 193,000 tons recorded in 1976. Moreover, the 1980 catch was 47 percent below the government target of 350,000 tons that had been set for that year. Overall, the fish catch grew by more than 100 percent in 1971-75 over the previous five years. In 1976-80 output grew by only 29 percent. Although the catch rose to 200,000 tons in both 1983 and 1984, it was unlikely that the government goal of reaching 300,000 tons by 1985 would be attained.

Several factors accounted for the fluctuations of the fish catch in the second half of the 1970s. According to the United Nations Economic Commission for Latin America and the Caribbean, the fish catch declined in 1979 as a result of the implementation of the universal 200-nautical-mile territorial limit that precluded the option of fishing in traditional waters and caused Cuba to search farther afield for new fishing grounds. According to Cuban scholar Carmelo Mesa-Largo, fishing declined when the fishing fleet was probably used to transport Cuban troops to Angola in 1975 and Ethiopia in 1977. Other reasons for the decline included the Peruvian abrogation of a lucrative fishing agreement with Cuba in 1979, the destruction of the largest fish nursery, in San Antonio, by a spill from an oil tanker that sank in the vicinity, and the 1980 cancellation of the United States-Cuban fishing agreement that had informally been adhered to for two years.

Cuba possessed two long-range fishing fleets that included about 67 vessels and two medium-range fleets of 298 vessels. The fleet was supplemented by a small inshore fleet of almost 2,000 boats. The Ministry of Fishing Industry was responsible for the operation of four canning factories, nine freezing facilities, 15 ice production machines, 30 centers for the deposit and distribution of fish, and a large transportation network for the delivery of fish. The fishing industry canned primarily lobster and tuna; shellfish was chiefly frozen for domestic consumption. The supply of fish to the domestic market increased by 4.4 percent annually between 1976 and 1983, reaching a total of 58,000 tons in 1983. Consequently the fish consumption per capita increased from 4.4 kilograms in 1973 to 5.9 kilograms in 1983.

## **Fiscal and Monetary System**

Since 1966 Cuba's financial apparatus has undergone a significant reorganization. In that year the Ministry of Finance was abolished, and the National Bank of Cuba (Banco Nacional de Cuba—BNC) assumed responsibility for the financial management of the economy. During the 1966–70 phase of the Sino-Guevarist model of economic development, such market instruments as profit, credit, interest, prices, savings, budgets, taxes, cost analysis, and monetary controls were discontinued or used in a haphazard fashion. Standardized accounting practices also fell into disuse, and the national budget was discarded during 1968–77. In the late 1970s the System of Economic Management and Planning (Sistema de Dirección y Planificación de la Economía—SDPE) introduced

measures to rebuild gradually an institutional framework capable of controlling and directing the economy. The SDPE restored the primacy of market instruments and, among other things, reintroduced the national budget in 1978. In 1980 the budgetary process was extended to the provincial and municipal levels. The budgetary process was complex and tentative, and its disparate components were still being fine-tuned in the early 1980s.

The budgetary process was structured vertically to fully integrate state and service enterprises at the municipal, regional, and national levels into the centralized planning apparatus. Each state and service enterprise submitted annual estimates of its financial requirements to JUCEPLAN in order to ensure that the requests conformed to the objectives of the national development plan. The budget drafts were submitted in turn to the municipal directors of finance, the executive committees of the municipal assemblies of people's power, and the provincial directors of finance for their approval or modification. The local budget proposals were then consolidated into the central budget by the BNC and submitted to the Council of Ministers for final approval. The president of the BNC presided over trimestral meetings of provincial and municipal representatives to review the execution of the budget. In accordance with Law No. 19 the BNC was required to provide the Council of Ministers with an expense and recovery report on the budget at every trimester throughout the fiscal year (which coincided with the calendar year). If expenditures exceeded the budgetary allocations, corrective realignment measures were implemented that sometimes included financial or administrative penalties.

The main sources of government revenue were profits from the state and service enterprises, taxes, and noncontributory revenues. Profit from state and service enterprises under local supervision were allocated to the municipal and provincial budgets. The kind of payments that were considered revenues of the central budget included such regulatory taxes as production taxes; sales taxes on lodging, restaurant, and recreational services; and taxes on consumer goods, surface transport, property transfers, documents, forestry, and capital invested abroad. In addition, an income tax was levied on the self-employed and on private farmers. Social security contributions and payments on the differential between prices charged for imported and exported goods were additional sources of government revenue. The retention rate, or the proportion of taxes that were allotted to the provincial and municipal levels, was determined at the national level. In certain cases a few provinces received a subsidy in the form of a 100-percent retention rate. Provinces and municipalities received approximately 93 percent of

their revenue from the state sector, 4 percent from nontributary revenue, and 3 percent from the private sector.

For the first time in five years, the state budget recorded a surplus of US\$447 million in 1983 (see table 10, Appendix). The surplus was achieved as a result of a 14-percent growth in revenues and only an 8-percent growth in expenditures. Almost 99 percent of total revenues were obtained from the state sector, slightly more than 1 percent from taxes and 0.2 percent from the nonstate sector. For the second consecutive year actual revenues exceeded the amount that had been budgeted by 6 and 8 percent in 1982 and 1983, respectively. The growth of revenues resulted from the implementation of improved fiscal controls, greater efforts to increase mercantile funds, development of the parallel market, and increased prices. The last two factors were estimated to have contributed about US\$465 million to state sector revenues in 1983. In 1980 and 1981 state revenues had failed to meet the budgetary targets. Nonetheless, revenues increased by 5 percent in 1980 and 15 percent in 1981. The jump in fiscal revenues in 1981 occurred in response to the vigorous growth of the economy after having grown very slowly in 1980.

Investment in the accumulation of capital was largely financed by the state budget. Since the mid-1970s approximately 27 percent of national income was channeled into investment. Concurrently, investment in the nonproductive sector declined as the government placed a greater emphasis on the development of the productive sector. From 1980 to 1982 the largest growth in productive investment occurred in commerce, transportation, and industry. In the nonproductive sector the most notable decline occurred in education. The high rate of investment resources devoted to the formation of capital in the productive sector implied that society was subjected to a forced savings by forgoing present consumption in favor of adding to future production possibilities.

In 1983 productive activities in agriculture and industry accounted for 38 percent of total government expenditures. Although allocations for productive activities increased by almost 10 percent in 1983, the amount was less than that spent in 1980 and 1981. In 1983 funds were channeled to the agriculture sector to assist in the recovery of crop losses that had resulted from flooding. At the same time, investment financing and operating capital flows were expanded. In 1980 and 1981 financial outlays to bolster expanded production objectives had risen by 7 and 26 percent, respectively. Thus, wages and commodity prices paid to small farmers increased. In addition, wholesale prices rose in 1981. This action caused production costs to rise, and additional financial assistance in the form

of subsidies was required. In 1982 expenditures were cut back in all sectors owing to constraints that arose from a lack of foreign exchange and high interest rates on the external debt. In spite of a more austere budget, however, additional subsidized aid was required to combat flooding at harvesttime, and spending on material incentives surpassed budgetary limits because of a greater-than-expected response from workers.

Spending on housing and community services rose to its highest level on record in 1983. Education and public health was the second largest budget item, composing a 21-percent share of the total. Spending for education and public health increased by 27 percent during the 1980-83 period, compared with the budget proposal that had forecast a growth of 20 percent. The third largest expenditure item was other social, cultural, and scientific activities, which had increased by 24 percent in 1980-83. The share of the budget spent on defense and internal security increased by 47 percent between 1980 and 1983. In 1982 this item exceeded the budgeted amount by 17 percent, according to Cuban officials, as a result of heightened tensions with the United States.

During the 1980-83 period provincial budgets accounted for about 27 percent of total government expenditures. Approximately 4 to 5 percent of central budget funds were allocated to the provinces as subsidies. Apart from locally collected revenue, subsidies represented almost 20 percent of provincial revenues in 1980 and 6 percent in 1983. The decline of about 63 percent in subsidized aid to the provinces during that interim was part of the government's goal of reducing costly subsidies. In the early 1980s the government provided considerable incentives to the provinces to reduce expenditures below budgeted targets. Since 1981 about 25 to 50 percent of the unspent portion of current revenues at the provincial level was put at the disposal of local authorities. Since 1982 additional revenues earned outside the confines of the development plan could be retained by the provinces.

The 1984 budget proposal estimated a surplus of US\$247 million on revenues of US\$12.7 billion and expenditures of US\$12.5 billion. The 1984 budget proposed increasing revenues by 1 percent and expenditures by almost 3 percent above 1983 levels. Spending on education and public health was projected to increase by 5 and 14 percent, respectively; science and technology by almost 16 percent; culture and art by 9 percent; and sports by 11 percent. Spending on social services was also slated to increase.

In the 1980s the BNC was the sole banking authority in the country. It was responsible for issuing currency, providing short- and long-term credits, financing capital investments, controlling



payments and receipts, administering gold and foreign exchange reserves, fixing the exchange rate, obtaining and granting credits abroad, and managing fiscal and monetary policy.

During the 1960s and 1970s the diminished role of the private sector, loss of monetary value, and the disappearance of market instruments relegated the use of monetary policy to a minor role in the management of the economy (see *Radicalization of the System 1963-66*, ch. 1). In the early 1980s the BNC assumed a more vigorous role in the formulation and control of monetary policy. Improved fiscal controls on budgetary allocations enabled a tighter rein to be kept on monetary flows. At the same time, wage, price, credit, and savings account reforms were implemented to valorize and influence the supply of money in the possession of the public.

According to Cuban sources, the wage reforms that were implemented in 1981 increased the liquidity of the public by approximately US\$790 million during the 1981-83 period. Consequently, retail prices that had largely remained constant for 18 years were adjusted upward in 1981 and 1982. This action reduced the excess liquidity by US\$570 million in 1981, US\$140 million in 1982, and US\$80 million in 1983.

In 1983 the BNC announced that, for the first time since 1968, interest would be paid on personal savings accounts. Concurrently, Law No. 69 created the Public Savings Bank to assist the BNC in stimulating personal savings. An interest rate of 2 percent was paid on savings of 2,000 to 5,000 pesos, and deposits in excess of 5,000 pesos (for value of the peso—see Glossary) collected an interest of 0.5 percent.

Between 1980 and 1983 the number of personal credit loans increased by 51 percent. The value of personal credit increased from US\$146 million in 1980 to US\$187 million in 1983. About 80 percent of personal loans were for household appliances, followed by loans for automobiles, construction materials, and household repairs. Since 1978 interest rates have been paid on credit loans that ranged from 4 to 12 percent. Long-term loans for automobiles carried an interest rate of 9.5 percent; loans for household repairs carried an interest rate of only 4 percent. Moreover, interest rates were usually about 2 percentage points less on certain items if they were purchased in the market of rationed goods rather than in the government-run parallel market.

In order to improve the distribution of banking services throughout the country, the BNC expanded the number of banking agencies, branches, savings banks, and regional offices from 74 in 1979 to 421 in 1983. The coverage of banking institutions was

increased from 25 to 143 of the 169 municipalities in the country between 1979 and 1983. In 1983 each banking institution served an average of about 24,000 persons, and the government hoped to reduce the ratio of inhabitants per bank to 10,000 by the end of the 1980s.

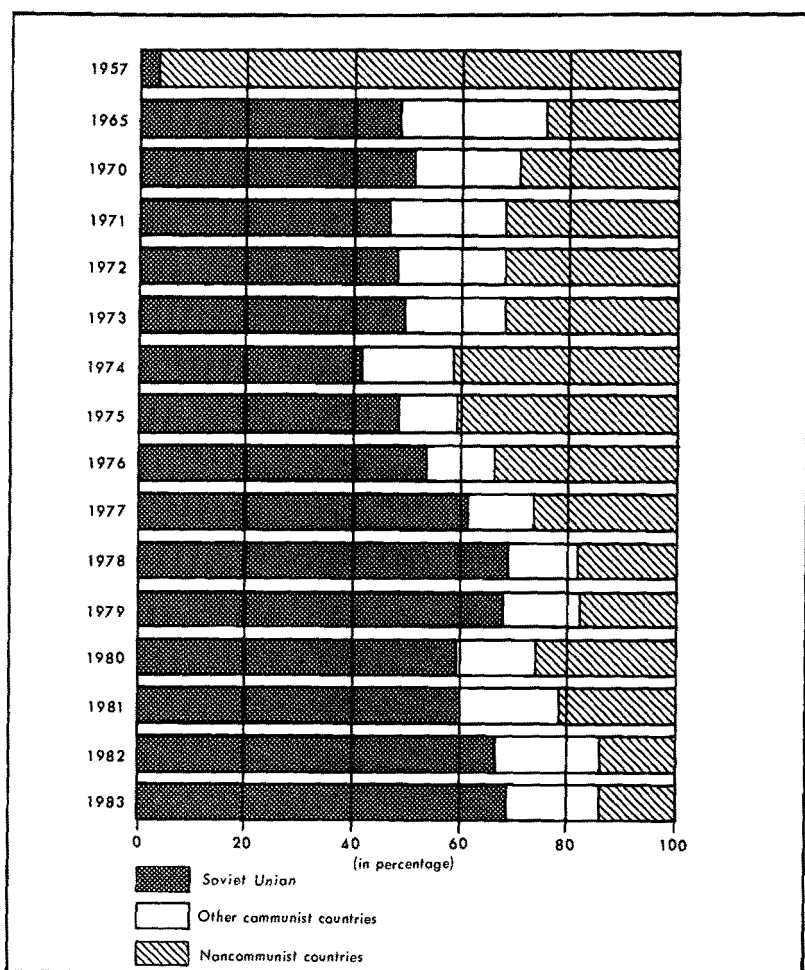
## **Foreign Economic Relations**

### **Trade**

One of the overriding goals of the Cuban Revolution was to make the economy independent of foreign powers. In mid-1985 this objective was as distant as ever. Approximately 70 percent of Cuba's prerevolutionary trade was with the United States. In 1984 Cuban trade with the Soviet Union accounted for approximately the same proportion (see fig. 5). Moreover, the economy remained heavily dependent on sugar monoculture and on the exportation of sugar to obtain a wide range of goods not produced domestically. Almost all of Cuba's exports consisted of raw materials, although cigar and cigarette exports were manufactured by using preindustrial techniques (see table 11, Appendix). Imports consisted largely of industrial capital goods, raw materials, and consumer products. Fuels and lubricants accounted for the largest portion of imports, but foodstuffs also continued to be imported in significant quantities (see table 12, Appendix). This trade mix left the economy extremely vulnerable to price fluctuations in the world market, as evidenced by the impact of falling sugar and nickel prices on the national economy during the 1981-85 period.

Cuba produced about 7 percent of the world sugar supply in 1984. Sugar was its principal source of foreign exchange; earnings from sugar declined from 83 percent of total export revenues in 1980 to 74 percent in 1983. The second leading export earner was nickel. Nickel earnings ranged from 4.6 to 7.4 percent between 1980 and 1983. In 1980 and 1981 the next leading export earners were seafood, citrus fruits, and tobacco products. Although export data were not available for coffee, it was increasingly important as an earner of foreign exchange. In April 1984 Cuba joined the International Coffee Organization and had a quota of 150,000 bags per annum.

In 1962 Cuba gained all the benefits of membership in Comecon except formal integration, and in 1972 Cuba became a full-fledged member. The bulk of Cuban import and export trade, as well as the level of Soviet financial assistance, was determined



Source: Based on information from United States, Central Intelligence Agency, Directorate of Intelligence, *The Cuban Economy: A Statistical Review*, Washington, June 1984, 26.

*Figure 5. Share of Total Trade by Major Area, Selected Years, 1957-83.*

during annual and five-year bilateral trade negotiations. Thus, membership in Comecon provided Cuba with an assured export market at predetermined prices. Integration into Comecon, however, imposed several structural constraints on Cuba's foreign trade options. Because the majority of economic activity centered on the production of sugar and the predominant export of a single commodity, the island's latitude for diversifying production and its export mix were restricted. Inter-Comecon trade was based on predetermined barter commitments that restricted Cuba's ability to generate hard currency earnings to purchase needed goods in the West. Moreover, reports indicated that Cuba was often disappointed with the quantity, quality, and supply record of its Comecon trading partners.

The value of Cuban exports to the Soviet Union increased from 57 to 70 percent of the total between 1980 and 1983 (see table 13, Appendix). At the same time, imports from the Soviets rose from 62 to 68 percent of the total value. Although Cuba maintained a trade deficit with the Soviet Union during the 1980-83 period, the size of the deficit would have been about 350 percent greater without generous subsidies on Soviet petroleum exports to Cuba and on Cuban sugar and nickel exports to the Soviet Union. Nevertheless, reciprocal trade flows were highly imbalanced. The Soviets supplied Cuba with goods that fell under more than 200 separate classifications, including 97 percent of its oil and oil products, most of its grain and lumber supplies, and industrial, agricultural, and transportation equipment. Cuba in turn exported about one-half of its sugar crop; the bulk of its nickel and citrus production; and some liqueurs, rum, tobacco products, printed materials, and stamps to the Soviet Union.

From 1980 to 1983 the Soviet Union purchased about one-half of all the sugar exported by Cuba and provided an average of 67 percent of its total sugar earnings (see table 14, Appendix). Cuban sugar exports to the Soviet Union increased from 2.7 to 4.4 million tons between 1980 and 1982 and declined to 3.3 million in 1983. Owing to shortfalls in the production of sugar in 1983 and 1984, Cuba was forced to purchase sugar in the world market to meet its commitments to the Soviets. Other Comecon member countries bought between 11 and 15 percent of Cuban sugar exports. Bulgaria, Czechoslovakia, Romania, and the German Democratic Republic (East Germany) purchased the bulk of those sugar exports. Although China was not a member of Comecon, its purchases ranged from 8 to 12 percent of total sugar exports. Non-communist countries bought 35 percent of Cuba's sugar exports in 1980, 20 percent in 1982 and 24 percent in 1983. In 1983 Japan

## *Cuba: A Country Study*

was the most important of these sugar buyers, followed by Egypt, Canada, Iraq, and Syria (see table 15, Appendix).

In June 1984 the negotiations for a new International Sugar Agreement collapsed owing to the failure of Cuba, Australia, Brazil, and the European Economic Community to agree on a new export quota system to stabilize prices. Cuba's previous annual export quotas for sugar, ranging from 2.4 to 2.6 million tons, were no longer enforced. Consequently, the lack of restrictions on the export of sugar by the major suppliers made it impossible to sustain the world market price at an adequate level in 1985. Cuba, however, had an advantage over other producers because of its export agreement for the annual sale of 4 million tons at subsidized prices to Comecon nations from 1981 to 1985.

In order to accelerate industrialization, Cuba was persistent in trying to expand its trade with noncommunist countries during 1980-83. This effort did not prove successful, however, owing to the severity of the Cuban economic slump, hard currency constraints, and ballooning foreign debt repayments to Western bank and government creditors between 1981 and 1984 (see External Debt, this ch.).

From 1980 to 1983 Cuba's leading export markets in the West were Japan, the Netherlands, France, Spain, and Canada (see table 16, Appendix). Cuba's largest trading partner within the Organization for Economic Co-operation and Development (OECD) was Japan, although the value of Cuban exports to Japan declined by more than 50 percent over the period. Cuba primarily exported raw sugar, seafood, coffee, and nickel in return for imports of machinery for construction and mining, vehicles, iron and steel, and foodstuffs (see Mining, this ch.).

Outside Comecon, the top five suppliers of goods to Cuba included Canada, France, the Federal Republic of Germany (West Germany), Japan, and Britain. Canada was Cuba's leading supplier from 1980 to 1983. Wheat and flour accounted for the largest proportion of Cuban imports from Canada (see Foreign Assistance, this ch.). Other imports included vegetables, industrial chemicals, sulfur, pesticides, asbestos fibers, lubricating oil, railroad cars and parts, rubber belts, fabricated materials, and lumber products. In addition to these products, Cuba's other leading suppliers provided dyes, medicines, pharmaceutical products, textiles, telecommunications equipment, electrical machinery and equipment motors, technical and scientific instruments, photographic and optical articles, and other consumer items.

Argentina and Mexico were Cuba's largest trade partners in Latin America. In March 1984 Argentina signed a trade agreement

with Cuba that provided for Argentine exports to rise from US\$120 million in 1983 to US\$300 million annually in the future. In order to facilitate this level of trade with Cuba, Argentina followed up the trade agreement with a US\$600 million credit line to be drawn in annual increments of US\$200 million through 1987. In May 1984 Cuba signed an industrial cooperation agreement worth US\$400 million with Mexico. In exchange for Cuba's raw material exports, Mexico agreed to provide Cuba with minerals, industrial equipment for steel production, and machinery and parts for the railroad system and the sugar industry.

Since the United States imposed a trade embargo against Cuba in February 1962, all economic relations with Cuba have been prohibited. In 1964 the members of the OAS also imposed an economic embargo in response to Castro's efforts to export revolution to the other countries in the hemisphere. Between 1980 and 1985 the United States trade embargo against Cuba was further tightened. In 1981 the United States Congress recodified laws that prohibited the export or reexport of materials, goods, or technical information of United States origin to Cuba; United States importation of goods that were produced in Cuba or transshipped through Cuba; and goods that contained Cuban parts or materials. The law also prohibited the transfer of property in which Cuba or one of its nationals had an interest to a person subject to United States jurisdiction. The transfer of credit or foreign currency transactions on behalf of any Cuban national by those under United States jurisdiction was also prohibited.

In 1982 tourist and business travel to Cuba by United States citizens was restricted. Certain United States foodstuffs and medicines for humanitarian purposes were still allowed to be exported to Cuba. Almost US\$1.4 million worth of medicine and pharmaceutical products were exported to Cuba between 1980 and 1983. In addition, privately donated apparel amounted to US\$130 million, and donated commodities totaled about US\$155 million.

## **Energy**

Cuba was heavily dependent on imports of petroleum and refined petroleum products from the Soviet Union. Barring the discovery of major offshore oil deposits, there was little potential for self-sufficiency in the production of energy. The island did not have any coal, the use of hydroelectricity was limited by the lack of large rivers or streams with year-round water flows, and the known reserves of oil and natural gas were very small. Although

the potential for expanding the output of biomass energy was great, the conversion of sugarcane into ethyl alcohol was not actively pursued. Geothermal and solar energy presented alternative potential sources of energy, but the dearth of technology and investment capital made their development prohibitive. The burning of sugarcane bagasse, i.e., sugarcane pulp, was used as a fuel to power the sugar mills at harvesttime. In spite of a 15-percent increase in the use of bagasse from 1980 to 1982, the annual use of fuel oil was still required as a catalyst to obtain the necessary energy. In 1980 the International Atomic Energy Agency approved the design for a nuclear power plant that was to be built with Soviet and Bulgarian assistance in the province of Cienfuegos. In 1984 work began on the construction of the first two of four water-cooled reactors. One of the reactors was expected to begin generating electricity by the end of 1985; all four were scheduled to come on line by the end of the 1980s. Each of the four generators will produce a maximum of 417 megawatts of electrical energy. Estimates indicated that the additional output of electricity from the plant would generate an annual savings of US\$500 million, or the equivalent of about one-third of the cost for Soviet oil imports. Nevertheless, Cuba would be dependent on the importation of enriched uranium from the Soviet Union.

In the 1980-83 period Cuba was moderately successful in raising the domestic production of oil. Oil output declined by 7.4 percent in 1981 from the 1980 level of 5,491 barrels per day (bpd), then increased by 114 percent in 1982 and rose an additional 34 percent in 1983. In 1981 Mexico's parastatal oil company, the Mexican Petroleum Company (Petróleos Mexicanos—PEMEX), signed an agreement with Cuba for the exploration of oil and natural gas deposits. In that year there were unconfirmed reports that PEMEX had discovered oil deposits off Cuba's northern coast near Havana. Cuban authorities believed that the prospects for further gains in production were likely because the potential offshore areas were still in the process of being delineated. Western oil industry sources generally maintained that the prospects for the existence of significant offshore oil resources were marginal at best. Comecon member countries did not possess the requisite technology to explore or exploit potential oil-bearing deposits at the offshore depths surrounding Cuba. Moreover, the combination of low world oil prices and the austerity measures in effect in Mexico during the mid-1980s made it difficult for PEMEX to allocate sufficient resources to explore adequately for oil near Cuba.

Cuban oil production accounted for less than 4 percent of total energy consumption in 1982. The burning of bagasse contrib-

uted about 21 percent, and hydroelectric, natural gas, ethyl alcohol, fuelwood, and charcoal accounted for 3 percent. Oil and refined product imports provided almost three-quarters of Cuba's total energy needs (see table 17, Appendix).

Between 1980 and 1983 oil imported from the Soviet Union provided about 97 percent of total oil requirements; domestic output supplied the residual 3 percent. In 1983 total oil imports included about 125,000 bpd of crude oil and almost 80,000 bpd of refined oil products. In the early 1980s Cuba imported from 11 to 13 percent of the Soviet Union's total oil exports to Comecon countries. The Soviets increased the supply of oil to Cuba by 10 to 15 percent, or by 2 to 3 percent annually, between 1981 and 1985. According to Castro, the Soviet Union also guaranteed the delivery of 97 percent of Cuba's oil supply through 1990.

Soviet oil shipments to Cuba were subsidized at preferential rates determined by an intra-Comecon mechanism by which oil export prices were based on a moving five-year average of world market prices. The 1981-85 Cuban-Soviet trade agreement allegedly indexed the sugar-for-oil price under a formula that maintained Cuba's purchasing power in 1974-75, when world sugar prices were at record high levels and oil averaged only US\$11 per barrel. Under this pricing formula, every US\$1 increase that the Soviets charged Cuba for each barrel of its 200,000 bpd of oil imports was matched by a US\$0.01 per pound increase in what it paid Cuba for its annual 3.5 million tons of sugar imports. The oil subsidy reflected the difference between the value of oil purchased from the Soviet Union and the value of imports at world market prices. In 1982, for example, Cuba paid only three-quarters of the Organization of Petroleum Exporting Countries (OPEC) benchmark price of US\$34 per barrel, for a savings of more than US\$1 billion. In 1983 the Soviet Union's price was increased to US\$24 per barrel, in comparison with the OPEC price of US\$29 per barrel, for an estimated savings of US\$300 million. From 1980 to 1983 the highly advantageous pricing mechanism saved Cuba a total of more than US\$4.4 billion in hard currency over what it would have spent to purchase oil at world market prices (see table 18, Appendix).

Cuba's hard currency constraints were further alleviated by a special arrangement whereby any oil that was conserved from the 1981-85 allocation of oil imports from the Soviet Union could be sold in the international market. In 1983 the resale of Soviet oil imports played a pivotal role in the successful rescheduling of Cuba's debt with Western creditors. In that year alone Cuba earned US\$570 million from the resale of oil on the spot market,



which made up for the shortfall of 800,000 tons of sugar and accounted for more than two-fifths of total hard currency export earnings. Originally, Cuba expected to earn only about US\$200 million on oil resales between 1983 and 1985, but the combination of domestic conservation measures and the moderate rise of domestic oil output saved more than 10,000 bpd of oil for resale in 1983. Thus the value of Cuba's resale oil rose by 82 percent in comparison with 1982, demonstrating that the benefits from the oil-for-sugar swap agreement were greater than originally believed. Between 1980 and 1983 Cuba earned US\$1.2 billion in the resale of oil. The importance of hard currency earned by economizing on oil was reflected in the 1984 budget, which sought to reduce further fuel consumption by 4 to 5 percent. In 1985 Castro claimed that the country had saved more than 14,000 bpd of oil in 1984 without substantially damaging the economy. In 1985 a systematic government campaign was launched to conserve oil and other raw materials.

Oil was initially delivered to Cuba by hundreds of Soviet oil tankers that traversed over 10,000 kilometers of ocean from ports in the Black Sea. In order to cut the number of tanker trips and thus reduce the cost of freight to Cuba, the Soviets arranged an oil swap agreement with Venezuela. The original agreement was negotiated in 1974 and then was allowed to lapse between 1981 and 1983. In August 1983 Venezuela resumed the shipment of 20,000 bpd of oil to Cuba. Under the agreement, Venezuela supplied oil to Cuba at market rates in exchange for the Soviet delivery of oil to Venezuela's customers in Western Europe. The Soviet Union reimbursed Cuba for the price differential between subsidized and market rates for oil. Mexico also supplied a portion of Cuba's oil products, and the Soviet Union explored the potential for establishing a similar swap exchange between Mexico and Cuba.

In 1984 work began on a new supertanker terminal near the port of Matanzas. The port was being constructed with Soviet assistance and was scheduled to include three primary moorings. One of the moorings was for tankers that had a maximum displacement of 150,000 tons. The second mooring was for medium- and smaller-sized tankers, and the third provided auxiliary moorings for additional vessels. The port was expected to be equipped with more than 20 oil storage tanks having a total volume of 1 million cubic meters and pipelines to convey the oil to refineries in Cienfuegos and Havana. In 1984 Cuba had three refineries with a total annual capacity of 120,000 bpd. Refineries in Santiago de Cuba and Havana were also being upgraded to increase refining capacity by 30,000 bpd.



*Fully laden Soviet oil tanker arriving in Cuba*  
Photo by John Finan

### **Foreign Assistance**

The complexity of Cuba's economic relations with Comecon member countries was not evident solely from an examination of trade flows. The Soviet Union supplied Cuba with repayable loans (see External Debt, this ch.), nonrepayable grants to finance the annual Soviet-Cuban balance of payments deficit, subsidized imports and exports, free military equipment, and loans of project aid credits on highly concessional terms. The total amount of Soviet economic assistance—excluding military assistance—was over US\$33 billion between 1960 and 1983 (see Soviet Assistance to the Revolutionary Armed Forces, ch. 5). About 84 percent of the aid had been disbursed since 1974. The bulk of this aid was crucial for running the economy. More importantly, it provided the financial latitude to develop the costly social service programs.

The Soviet Union provided approximately US\$23 billion in grants in the form of subsidies during 1961–83 to facilitate Cuban-Soviet trade. The Soviet Union paid artificially high prices for Cuban exports of sugar and nickel and priced its petroleum exports

to Cuba below world market levels (see Energy, this ch.). These subsidies represented the difference between Cuban-Soviet trading prices and world market prices. From 1980 to 1983 the Soviet Union provided subsidy aid that enabled Cuba to reduce its trade deficit by US\$12.3 billion. Without such subsidy aid, Cuba's actual 1980-83 trade deficit of US\$3.4 billion would have reached US\$15.8 billion.

The 1981-85 Soviet-Cuban trade agreement established the pricing mechanism by which the Soviet price for Cuban sugar was indexed to a five-year moving average of world market prices. Under this formula Cuban sugar exports to the Soviet Union were modified in proportion to changes in the price of such Soviet exports as steel, oil, foodstuffs, and machinery. The pricing formula provided constant terms of trade for Cuban sugar exports. The world market price for sugar exceeded the Soviet offered price only in 1963, 1972, and 1974. From 1980 to 1983 world market sugar prices declined from US\$0.286 to US\$0.085 per pound, while the Soviet price declined from US\$0.486 in 1980 to US\$0.352 in 1981, rose to US\$0.358 in 1982, and reached a high of about US\$0.49 in 1983. In 1984 world market sugar prices plunged to a low of about US\$0.04 to \$0.06 per pound, and the Soviet price was about US\$0.49 or \$0.50 per pound. Market prices for sugar were expected to remain low throughout 1985, but the pricing formula for sugar partly insulated Cuba from the economic effects of the low prices.

Nearly all of Cuban-Soviet trade was conducted in soft currency, but occasionally the Soviets made extraprotocol purchases of Cuban sugar for hard currency. These purchases totaled US\$475 million between 1981 and 1983 (see table 19, Appendix).

Other Comecon countries also purchased Cuban sugar at prices above the world market rates but often below the Soviet offered price. From 1980 to 1982 the other Comecon countries paid a price that averaged US\$0.263 per pound. A majority of the sugar subsidies were provided by Bulgaria, Czechoslovakia, and East Germany. These subsidies amounted to a total of US\$893 million between 1980 and 1983 (see table 18, Appendix).

The Soviets also subsidized the price of Cuba's second largest export item—nickel. Approximately US\$574 million in Soviet subsidies was paid for Cuban nickel over the 1961-83 period. In 1980 the Soviet Union paid US\$12 million less than the world market price for nickel; from 1981 to 1983 it paid US\$329 million above world prices.

Overall development assistance in the form of project aid and trade deficit financing totaled almost US\$10 billion between 1961

and 1983. Through its participation in Comecon and directly from the Soviet Union, Cuba received materials, equipment, advisers, and credits on highly concessional terms for development projects related to export development and import substitution industrialization. This aid was used, for example, to construct and modernize industrial plants, explore for oil and minerals, modernize and expand the nickel industry, and mechanize and modernize the sugar industry. Since 1959 factories that were constructed and refurbished with Soviet aid accounted for 100 percent of the output of sheet metal, 95 percent of steel, 50 percent of fertilizers, and 40 percent of electricity. During Cuba's first five-year economic plan (1976-80) the Soviets spent US\$1.7 billion on the construction and modernization of over 200 industrial enterprises. Project credits were extended on a long-term basis of 25 years with grace periods of up to 10 years and interest rates that did not exceed 4 percent. Cuba also received credits on favorable terms to finance its annual ruble currency trade deficits with the Soviet Union. The amount of those allocations was determined during annual and five-year bilateral trade negotiations. The aid was scheduled to be repaid over 15 to 17 years (with a grace period of five years) and was interest-free. From 1980 to 1983 the Soviets provided Cuba with US\$4.2 billion in project aid and trade deficit financing, or almost 45 percent of the nearly US\$10 billion that had been disbursed since 1960.

About US\$3.4 billion in project aid and trade deficit financing that accrued between 1959 and 1973 was rescheduled by the Soviet Union in December 1972. Under the terms of the agreement, the initial payments were postponed until 1986, and the interest charges were canceled. Noninterest-bearing amortization would then begin to be repaid annually over a 25-year period. In October 1984 the Soviets agreed to reschedule all Cuban debt repayments that were due before 1990. The terms of the rescheduling, however, were not disclosed at that time.

Comecon member countries also delivered sizable amounts of economic aid in soft currencies. Cuban sources indicated that Comecon provided almost US\$600 million in project aid and trade deficit financing between 1976 and 1980 and nearly US\$1 billion from 1980 to 1983.

In addition to these forms of economic assistance, the Soviet Union mitigated Cuba's financial burden with the West by purchasing over 1 million tons of grain annually from Canada for hard currency. Cuba received the grain and paid the Soviets in soft currency. This intermediation saved Cuba between US\$200 and US\$300 million annually between 1980 and 1983. Overall, Cuba

saved more than US\$2.8 billion in hard currency between 1961 and 1983 from this form of aid.

Official development assistance to Cuba in hard currency loans from Western nations and organizations was another important source of aid, but the magnitude of this aid was far smaller than that from Comecon. Individual member countries in the OECD and OPEC, as well as multilateral organizations, provided about US\$62 million in official development assistance to Cuba from 1980 to 1982, which was about 22 percent of the total amount extended since 1971. Approximately half of all official development aid was allocated through bilateral programs. Overall, Sweden and the Netherlands were the largest contributors. Projects that were funded through bilateral aid included training for the tourism industry, equipment for the sugar industry, and laboratory equipment for medical research. About 75 percent of the aid extended between 1980 and 1982 was disbursed by agencies of the United Nations such as the Food and Agriculture Organization and the United Nations Development Program. Projects that were financed through multilateral channels included educational development, construction and technical assistance for an experimental paper factory using bagasse and the renovation of Old Havana.

Despite the large amount of economic assistance received by Cuba, its hard currency debt increased by about 140 percent between 1976 and 1980. In 1982 some US\$1.2 billion out of a total of about US\$3.3 billion in hard currency debt was due to be paid by 1986 (see External Debt, this ch.). Government-guaranteed credits represented an important source of external financing. This form of economic assistance accounted for about 80 percent of Cuba's bilateral public debt and about 30 percent of its total external debt between 1979 and 1983. A majority of these official credits were extended for the purchase of Western goods and were backed by Cuban government guarantees. The principal countries that extended trade credits included France, Canada, Japan, Britain, Spain, Sweden, West Germany, Mexico, and Argentina.

### **External Debt**

In 1983 Cuba's external debt to the Soviet Union was estimated at about US\$8 billion, and an additional US\$3.3 billion was owed to Western bankers and governments. Cuba's outstanding hard currency debt to Western creditors began to mushroom during the 1970s until a combination of internal market and financial con-

ditions forced the country to request a rescheduling of its medium- and long-term debt in August 1982.

The rapid economic growth that Cuba experienced during the first half of the 1970s improved its creditworthiness, and international banks in the West provided credit on favorable terms. In the latter half of the 1970s, however, Cuba resorted increasingly to larger loans from Western banks and official export credit organizations to cover widening hard currency current account imbalances. As a result, Cuba's hard currency debt quadrupled to over US\$3 billion by the early 1980s.

At the end of 1980 Cuba's economy entered a downswing as the price of sugar began to fall. Between 1980 and 1982 the price of sugar on the world market declined by 70 percent. Cuba was unable to increase its exports in order to offset the effects of the plummeting price for sugar because of previous export obligations to soft currency customers in Comecon, a reduced sugar harvest, and restrictions on sugar exports imposed by the International Sugar Organization. Moreover, the gap was not filled by expanded hard currency assistance from the Soviet Union and China, from export earnings for nickel, fish, and tobacco, or from revenue from tourism.

At the same time, Western lenders turned down Cuba's request for new credit lines as they grew wary over the contraction of export earnings, the consequent economic slump, rising principal payments, and interest payments on outstanding debt that increased by more than 50 percent between 1979 and 1982. In addition, international banks were concerned about loan overexposures in the Third World and rising East-West tensions. As a result, the banks withdrew over US\$550 million of their short-term deposits in Cuban banks.

In order to counteract these financial constraints, Cuba cut its imports from the West by approximately 40 percent between 1980 and 1982 and reduced unnecessary hard currency expenses where possible. The reduction of imports of necessary inputs for steel plants, construction, and other basic industries was largely responsible for the fall in the economic growth rate from 5.4 percent in 1981 to an estimated 1.4 percent in 1982. These measures proved to be inadequate, and Cuba was forced to reduce its foreign exchange reserves by 75 percent between 1981 and the middle of 1982 to meet pressing financial obligations.

In September 1982, in response to the severe liquidity crisis that beset the economy, Cuba requested that its medium- and long-term debt in hard currency be rescheduled. Cuba concurrently stopped the payment of principal on the debt and agreed to

continue paying all interest. Specifically, Cuba asked its creditors to defer for up to 10 years all repayments of some US\$1.2 billion out of a total of US\$3.3 billion in principal that were due between September 1982 and the end of 1985, and for a grace period of three years. Cuban officials blamed the situation on falling sugar prices, the drying up of new credit lines, the world economic crisis, and the problems caused by the United States trade embargo on Cuba.

In reviewing Cuba's request, the banks temporized because of the paucity of reliable information on the country's economic performance. They were also concerned because Cuba was not a member of the International Monetary Fund (IMF—see Glossary) and therefore not subject to its provision requiring country borrowers to sign letters of intent to follow certain economic guidelines in return for financial aid. International banks usually provided rescheduling relief only to countries that had signed a letter of intent with the IMF. Thus the banks insisted that a multilateral organization, like the Club of Paris (see Glossary), ensure that Cuba would adhere to established rescheduling principles. This was considered of paramount importance by the Western banking community in light of the major drain that the repayment, beginning in 1986, of an estimated US\$8 billion debt to the Soviet Union would have on the Cuban economy.

In response to these concerns, Cuba issued a report to Western creditors that outlined the country's outstanding debt structure that it hoped to reschedule between September 1982 and the end of 1985. Accordingly, Cuba's total medium- and long-term principal payments peaked in 1983 and declined thereafter. It revealed that the payments that were due during the last four months of 1982 totaled US\$153.5 million, rose to US\$457 million in 1983, fell to US\$373.5 million in 1984, and bottomed out at US\$282.2 million in 1985. Of that total, around one-third of the repayments were for syndicated and bilateral loans and about two-thirds for insured export credits for the purchase of capital goods.

In March 1983 Cuba reached an agreement with the Club of Paris countries on rescheduling US\$413 million worth of official debt to foreign governments that was due between September 1982 and the end of 1983. Under the terms of the agreement, Cuba was required to repay 95 percent of the principal in 10 installments between 1986 and 1991, the other 5 percent to be repaid at the end of 1984 and 1985. Cuba had to settle for a shorter repayment period than the 10 years that it had requested. In addition, an agreement on economic targets that was similar to an IMF letter of intent was signed as a precondition to rescheduling the US\$250



*Hotel Nacional, one of a number of tourist hotels in Havana*  
Photo by Phillips Bourns

million due in 1984. The agreement stipulated that hard currency imports were not to exceed US\$700 million, and the debt service to hard currency income ratio was to be held under 25 percent.

In December 1983 Western banks agreed to reschedule almost US\$200 million of medium- and long-term commercial debt that fell due between 1982 and the end of 1983. The terms were not as favorable as Cuba would have hoped: repayments were



spread over seven years, there was a 30-month grace period, and the interest rate was set at 2.25 percent above the London Interbank Offered Rate (LIBOR). Maturities of over US\$130 million that were due in 1984 were made contingent on Cuba's economic performance and on whether the Club of Paris agreed to reschedule Cuba's US\$250 million debt due to foreign government creditors in 1984.

Cuba and Western bank creditors, under the chairmanship of *Crédit Lyonnais*, originally had begun discussions on the renegotiation of the 1982-83 commercial debt in March 1983. Part of the reason for the nine-month delay in reaching an agreement was that the banks believed that the Soviets would stand behind Cuba's foreign debt. When it became evident that the strength of the Soviet umbilical cord did not extend to the coverage of Cuba's external debt to the West, the banks agreed to reschedule rather than risk a Cuban default.

Despite the payments relief provided by the December 1983 debt rescheduling, Cuba's economic prospects remained dim in 1983-84. Inefficiency, mismanagement, and adverse weather caused extensive damage to sugar, tobacco, and several vegetable crops. Sugar prices were depressed, and marketing problems caused key sugar and nickel exports to plummet. Cuba made up the shortfall in export earnings and successfully met the terms of the 1983 rescheduling agreement through the increased resale of oil imported from the Soviet Union (see *Energy*, this ch.).

In July 1984 terms were finally reached on rescheduling US\$250 million owed to Western governments and US\$100 million owed to commercial banks during 1984. The terms under the agreement included an interest margin of either 1.875 percent over LIBOR Eurodeposit rates of 12.75 percent or 1.625 percent above each bank's equivalent domestic rate. Repayments were scheduled to begin after a five-year grace period, and Cuba was charged a renegotiation fee of 0.875 percent. The Western banks also agreed to an additional one-year extension on US\$380 million of outstanding short-term debt under terms that called for an interest rate of 1.25 percent above LIBOR and a 0.25 percent renegotiation fee. Continued low world market sugar prices and the diminution of hard currency earnings from nickel, seafood, and tobacco exports in 1984 forced Cuba to request a rescheduling of another US\$280 million worth of maturities that were due in 1985.

In 1986 the grace period on approximately US\$8 billion of Soviet loans that had been rescheduled in 1972 was set to expire. At the same time, around US\$400 million in hard currency repayments were due to be paid to Western creditors. Of that total,

about US\$100 million represented repayments on the debt re-scheduled in 1983. In order to prevent the Cuban repayments to the Soviet Union from bunching on top of the amount that was due to the West, in October 1984 the Soviet Union was reported to have rescheduled all of Cuba's repayments that were to fall due before 1990.

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All economic research on Cuba should begin with Carmelo Mesa-Lago's *The Economy of Socialist Cuba: A Two-Decade Appraisal*. The comprehensive scope of this book surpasses his earlier works on the topic, as well as those of other authors in the field. *Revolutionary Cuba: The Challenges of Economic Growth with Equity* by Claes Brundenius addresses the methodological inconsistencies in Cuba's macroeconomic indicators and provides a useful interpretative contribution to the economic and social development of Cuba. Numerous authors have made significant contributions that span the interpretative spectrum in the University of Pittsburgh's *Cuban Studies*, published by the Center for Latin American Studies, and to Irving Louis Horowitz numerous editions of *Cuban Communism*.

The *Anuario estadístico de Cuba*, published by the government's Comité Estatal de Estadísticas, provides a massive compilation of statistical information, although there are notable gaps. This publication is usually available for distribution with a two-year time lag. *The Cuban Economy: A Statistical Review*, published by the United States Central Intelligence Agency, relies on the *Anuario estadístico de Cuba*, but certain gaps are filled by the inclusion of data from the Banco Nacional de Cuba, the Soviet Union, and other sources. The United Nations Comisión Económica para América Latina y el Caribe (CEPAL) annually publishes the *Estudio económico de América Latina y el Caribe: Cuba* which is a useful complement to the *Anuario estadístico de Cuba*. A review of current Cuban socioeconomic events is often cited in the official daily newspaper, *Granma*, or in the weekly edition in English, *Granma Weekly Review*. (For further information and complete citations, see Bibliography.)

