CUBA

Capital: Havana
Area: 110,922 km²
Population: 10,608,000 (1990 projection)
Population density: 95.6/km² (1990)
Urban population 74.9%
Per-capita GDP in US$: 2,000 (1988) (a)
Life expectancy at birth: 75.4 years (b)
Infant mortality rate: 11‰ live births (c)
Illiteracy: 6% (d)
Population under poverty line: Not available
Human Development Index 1992: 0.732 (61st) (e)[1]

The challenges of economic survival and the uncertainties of the future*

For more than 30 years, Cuba has been oriented toward building a socialist system. This explains both the peculiarities of the economy and Cuba's political and social system in the Latin American context and the problems the island faces today, in an international scenario in which the dissolution of the Eastern European regimes has deprived the Government of Cuba of its traditional allies and trade partners and has left it relatively isolated internationally as it confronts the embargo by the United States, its traditional adversary. Against this background, and as the communications media and various human rights organizations have noted, this has produced a hardening of the regime in which human rights violations have increased and persecution of dissidents has intensified.

There is widespread consensus that during the three post-revolutionary decades (1959-1989), Cuba made major progress in education, access to and the quality of health care and social security, full employment, and income distribution without parallel in the rest of the region and well above that in countries with a similar level of per-capita income. Access to health care is universal, life expectancy increased during that period by 12 years, school attendance rates at all levels rose to the highest in the region, and the average amount of schooling per inhabitant increased from 2.0 to 4.6 grades.[2] For these reasons, Cuba figured among the countries with "high human develop-

ment" in 1990 (before the onset of the economic crisis)—in 92nd place in the "human development" classification proposed by the United Nations Development Program for 130 countries (Niger was No. 1 and Japan, No. 130), although in per-capita income terms it ranked much lower, among countries with middle income, in 66th place.[3]

Despite such successes, the structural problems in the Cuban economy, which sprang from both the nature of a planned economy itself and its foreign ties, began to become apparent in the second half of the 1980s. The Cuban economy was closely linked to the economies of the Council for Mutual Economic Assistance (COMECON), of which Cuba was a member, particularly for geopolitical reasons (the alliance of the Eastern countries and the U.S. economic sanctions). The result was a relatively undiversified and therefore very dependent production structure and foreign trade pattern. Eighty-eight percent of Cuban imports in 1988 were from COMECON countries and 70% from the Soviet Union. For petroleum and its derivatives, the proportion was 99% from the USSR alone. In the same year, somewhat more than 88% of Cuban exports were to COMECON, and the proportion was still higher for sugar (more than 90%), Cuba's main export product.[4] There were also other problems, such as the accumulation of trade deficits, dependence on Soviet assistance, low labor productivity, technological dependence, scarcity of consumer goods, and the Economic Management and Planning System's bureaucracy.[5]

Between 1980 and 1985, and in contrast to the crisis that affected all of Latin America from the end of the 1970s and beginning of the 1980s, Cuba's economy was very vigorous, averaging 6.3% annual growth rates. That growth was attributed to factors such as relative increases in productivity and installed capacity, improvements in economic management systems, and, especially, the availability of external financing and supply.[6] Growth halted as from 1985, however. In 1987 it was -4.8%, and in 1989 and 1990 there was no growth. In addition to those already noted, the fall in production beginning in 1985 is explained by factors such as decreased demand from the COMECON countries, a reduction in the preferential sugar price paid by the USSR (a fall of 18% from 1984 to 1989),[7] and the growing scarcity of freely convertible foreign exchange, which resulted chiefly from credit flow contractions which forced postponing payments on external debt service The scarcity of foreign exchange affected the entire economy because of decreased ability to import inputs (fertilizers, spare parts for automotive vehicles and industrial machinery, intermediate goods, and capital).[8]

Coinciding with the changes that began to occur in the Soviet Union, the so-called "process of rectifying errors and negative tendencies" was introduced at the III Congress of the Communist Party of Cuba (CPC) in 1986. Through the process, a series of political and social reforms began which were intended to restore economic growth as part of a rationale of extending the central planning system. This led, among other things, to a reduction in domestic consumption and the elimination or control of certain new market mechanisms introduced in previous years.

The rectification process and the new economic policies soon ran head on into the political changes in Eastern Europe, COMECON's dissolution, and redefinition of trade ties with its member countries, however For Cuba this meant additional problems, such as the loss of its preferential markets for sugar exports, whose purchases by the Soviet bloc countries fell by about 56% from 1989 to 1990, which made their sale on a world market saturated by the product very difficult.[9] Moreover, supplies of Soviet oil declined from 13 million tons in 1990 to 8 million tons in 1991 and about 3 million tons in 1992, and in August 1990 that led to drastic rationing which has had a heavy impact on industry, transportation, and supplies for the population. As a result, it is calculated that economic activity decreased by 35% from 1990 to 1991. It must be noted in this regard that in 1989, 99% of the country's electric power came from oil. There are other scarcities as well, such as of newsprint, wheat, and spare parts, and these have led to the closing or underutilization of industrial plant and the stoppage of much of the automotive fleet.[10] Only 5% of the fertilizer

which had been agreed on was received in 1991.[11] The scarcity of capital goods has resulted in the paralysis of various plans to invest in agriculture and industry, and even in the nuclear field. Finally, German reunification has meant that supplies of high-technology equipment from that country, which earlier had been the only provider of computer and precision equipment, have had to be paid for in hard currency. All this led to an economic emergency which continued to worsen during 1992 and contributed to patent deterioration in social development indicators, particularly in health, though this is hard to quantify since there are no exact data in this regard.

These conditions, which have officially been called the most difficult financial situation during the entire revolutionary period and have had serious consequences for the population's production, supply, and consumption, led the Government to decree a set of emergency measures and programs known as the "Special Period in Time of Peace." Specifically, drastic cuts in energy consumption have been established, strict rationing of essential staple products has been instituted in order to guarantee their equitable distribution, resources (investments, labor, appropriate technology) have been reoriented toward self-supply of foodstuffs through the Food Program; exports have been diversified through the biotechnology production program (drugs, medical and pharmaceutical products, and medical equipment), foreign trade has been redirected toward Western European, Asian, and Latin American countries, import substitution has been undertaken through domestic production, and tourism has been promoted.

The IV Congress of the CPC, in October 1991, echoed this situation as well as social demands and pressures to liberalize the political scene, as became clear during the so-called "crisis of the embassies" in 1990. After the Congress, constitutional reform was initiated by establishing a procedure for the direct election of members of the National Assembly (though rule by a single party was decreed), granting greater freedom to Christians, and permitting foreign investment of private capital.

Although there have been some successes in the area of biotechnology exports, diversification of external markets (e.g., with China), and foreign (especially Spanish) investment in the tourism sector, these efforts are not going to be able to overcome the difficult economic situation in the short term. Food production, import substitution, and export promotion policies have suffered from an infrastructure that is still weak and very dependent on technology and supplies from market economies. In addition, the hardening of the U.S. economic sanctions helps aggravate the situation.[12]

Cuba's prospects in the coming years are very uncertain. In the short term it would appear that the economic situation, and so supply, will worsen, which could cause social unrest As yet there can be no prediction of the outcome of the crisis in the medium or long term, and that will undoubtedly depend on the capacity of the Cuban economy as well as the foreign and domestic supports and pressures which the country and its present Government experience.

The employment situation and the work force

In 1988-1989 the work force constituted 43.7% of the total population. According to 1985-1988 averages, it was chiefly in the service sector (47.7%), followed by industry (28.5%) and agriculture (23.8%). The sectoral structure of the work force has undergone significant changes in recent decades, especially in agriculture: in 1965, 41% was in the service sector, 25% in industry, and 33% in agriculture. In 1981, 94% of the economically active population (EAP) older than 10 years, or 3,540,000 people, were wage earners (including self-employed workers and small farmers), and the vast majority worked in the state sector In 1979, only 6.4% of the work force was in the private sector, and most were small farmers.[13] It is estimated that in 1981 there were 209,000 people who worked as unpaid family members or self-employed persons. In 1985, only 0.1% of children aged 10 to 14 years worked, the

lowest such rate in Latin America. The proportion of young people 15 to 19 years old who worked was 24.2%.

There were changes in the occupational profile of workers during the 1980s. Their proportion in agriculture fell from 22.8% of all workers in 1980 to 19 6% in 1989. In contrast, the health and sports sector, which includes tourism, increased from 4.7% in 1980 to 6.9% in 1989. Work in industry, trade, and education did not undergo major changes, except for a slight increase in industry and a small reduction in education. Since 1988, as a result of the policy of redistributing the work force to strengthen the productive sphere, the agricultural, manufacturing, and construction sectors have accounted for most of the increase in the active population.

Because of the principle that every citizen has a right to a job, the negative change in the economy in employment has resulted not in unemployment but in a decrease in productivity, which in 1989 fell by 2.5% because of overstaffing and the inexperience of new workers. In some sectors, however, there has been a decline in the working population; such is the case in construction, in which the reduction in demand for technical finishing (as a result of the lack of inputs) reduced employment of skilled labor. In transportation, spontaneous relocation of workers specializing in maintenance and repair has occurred. In adherence with the policy of promoting crops for domestic consumption, and given migration from the countryside to cities, the Government initiated the Turquino Plan to attract workers to rural, and especially mountainous, areas by assigning modern housing and supplying services found only in urban areas.

The labor market was put under heavy pressure in 1988 because of the efforts being made to increase productivity and efficiency by reducing as much as possible the numbers of white collar workers. At the end of the year, in addition, large numbers of military and civilians assigned to Angola began to return to the country. All these things created new difficulties in providing employment to those seeking it. Furthermore, the work force trained to undertake recently promoted activities such as tourism is still insufficient. Finally, starting in 1990 as part of the "Special Period," there has been a massive shift of labor from the industrial and service sectors to agricultural activities, open unemployment has appeared, and "black" or informal work has obviously increased, though there is no precise information about it.

Average wages deteriorated during the second half of the 1980s. Though they grew by 3.3% from 1982 to 1984, starting in 1985 growth has not exceeded 1.5% and in 1987 even fell by 2.1%. In 1988 there was a general increase in wages and so the population's liquidity increased, which put some pressure on prices, as became clear in mild rises in some categories in the parallel state market. Although saving increased, it was insufficient to capture the increase in money supply since there was no rise in the supply of goods. In other words, increases in money wages have not meant an improvement in living standards. As part of the Turquino Plan, money wages in the agricultural sector and forestry were readjusted 4% upward, compared with those in the industrial sector, in 1988. Average wage growth in 1989 was only 0.8%. The difference in wages between better paid work, such as science and technology, and less well paid work such as trade is only 33%.

The health situation, nutrition, and environmental sanitation

All of Cuba's health indicators are among the highest in Latin America and on a par with those in industrialized countries. Life expectancy at birth in 1990 was 75.4 years, having increased by 12 years between 1960 and 1990. During the same period the gap in this indicator between Cuba and the northern countries closed completely The most recent advances in life expectancy at birth occurred between 1980 and 1990, increasing from 71.4 to 72.2 years for males and 75.2 to 75.8 years for females. In the country's 14 provinces, life expectancy varies from 73.4 years in Havana to 75.7 years in Villa Clara.

Since they represent long-term trends, these indicators may have been affected to a minor extent by the emergency economic situation which the country has experienced since 1990. Other indicators, more sensitive to short-term economic variables, should be viewed with caution inasmuch as they do not reflect the deterioration in living standards now occurring in Cuba.

Recording of health indicators is almost complete. Estimates based on the national censuses of 1970 and 1981 confirm the almost total integrity of newborn registration. As for deaths, measures were adopted in 1968 which resulted in an increase in registration offices from somewhat more than 100 to more than 600, which eliminated the inaccessibility which had contributed to underregistration. The coverage and integrity of birth and death information has been enhanced by a registration system which includes double certification of deaths by the Ministries of Justice and Public Health, initial coding of medical certification in the provinces which is reviewed at the national level, and the institution of perinatal death certification in January 1973.[14]

The 10 leading causes of general mortality reflect a health profile characteristic of the developed world. They did not vary during the 1980s, though the relative position of some changed. In order of importance, they were cardiovascular diseases (191 per 100,000 population); malignant tumors (123); cerebrovascular conditions (62); accidents (48.5), influenza and pneumonia (34); suicide (21), diabetes mellitus (20); bronchitis, emphysema, and asthma (10); conditions of the perinatal period (9), and congenital anomalies (8).[15] These 10 leading causes accounted for approximately 80% of all deaths in both 1980 and 1988.

In the 15- to 49-year age group, accidents were the leading cause of death in 1988. The second cause was malignant tumors, followed by suicide, heart diseases, and cerebrovascular conditions. The movement of chronic diseases toward the top of the list of death causes in the 15- to 49-year and 50- to 65-year age groups is well known Heart diseases and malignant tumors are in second and fourth place in the 15- to 49-year group, with rates of 21.1 and 25.4 per 100,000 population, respectively, and in first and second places in the 50- to 64-year group, with rates of 268.1 and 252.6 per 100,000.

In 1980, 76.8% of deaths occurred in persons older than 50 years, and 60.1% in those older than 65 years; in 1988, these proportions were 79.9% and 63.9%, respectively. Mortality in the 15- to 64-year group represented around 30% of deaths in the period from 1985 to 1988. Somewhat less than half of such deaths occur in the 15- to 49-year subgroup. An examination of the causes of death in the group aged 65 years and older, in sum, shows that they take the lives of two-thirds of Cubans. Heart diseases are the leading cause, followed by malignant tumors (cancer of the respiratory system predominates in men), cerebrovascular diseases, influenza and pneumonia, and arterial conditions (essentially arteriosclerosis, which in many instances is related to diabetes and hypertension).

There has been a gradual decline in morbidity from communicable and parasitic diseases in all age groups and, in particular, childhood, as well as an increase in chronic and degenerative diseases as life expectancy has increased. The major decline in diseases preventable by immunization is explained by high vaccination coverage, which nationally is more than 88% in the different age groups.

Infant mortality fell from 16.5‰ live births in 1985 to 11.9‰ in 1988 and to 11‰ in 1990, a very low level compared with the average rate of 41‰ in countries with a similar income level.[16] This decline was due to the execution of a Program to Reduce Infant Mortality which included improvements in prenatal care, early detection of congenital abnormalities (extended to the entire country), and the initiation in 1985 of the Family Doctor Program. Other factors were the birth of 99.5% of children in hospitals and, finally, the organization of a new perinatology program which includes the creation of perinatology services in maternity hospitals, as well as the introduction of a maternity section to improve the care of pregnant women. Mortality in five-year-old children was also very low in 1990—14‰.[17]

The five leading causes of death in infants less than one year old account for about 80% of all deaths in that age group. Diarrheal diseases were the leading cause of infant death for more than a half-century, and in 1970 still accounted for 5.5‰ live births. In 1988, however, they were the cause of only 321 deaths in the general population (84 of which were in children less than one year old), with a rate of 3 per 100,000 population. This represents only 0.5% of the country's mortality. The number of medical visits because of acute diarrheal diseases did not follow the same trend curve as that of mortality. In 1988, accidents were in first place in the 1- to 4-year age group, with a rate of 2 3‰, followed by congenital anomalies (1.1‰), malignant tumors (0.7‰), and influenza and pneumonia (0.5‰). In the 5- to 14-year group, accidents were in first place, with a rate of 20.4‰, followed by malignant tumors (5.0‰), congenital anomalies (3.5‰), meningococcal infections (1.6‰), and heart diseases (1.0‰). Malnutrition affected only 1% of infants aged 12 to 23 months.

Maternal mortality during the 1980-1987 period was 34 per 100,000 live births, and contrasts positively with the average of 120 per 100,000 in countries with income similar to Cuba's

As of June 1989, 308 cases of HIV positivity had been detected in 4,748,731 persons examined. Examinations began in the most exposed groups by age, length of service abroad, etc., and have been extended to the population at large. In that year the seropositivity rate was extremely low (0.007%) According to PAHO reports, 137 AIDS patients had been registered by June 1992, of whom 72 had died. Despite the relatively small number of patients, AIDS has continued to spread since 1987.[18] It has been noted that the rapid growth of tourism may result in an increase in AIDS incidence in the medium term.

Cuba has a unified, comprehensive, and decentralized health system. The governing body is the Ministry of Public Health, which has eight vice-ministries with responsibilities in specific areas. The Ministry directly oversees research institutes, institutes and faculties of medicine, and some national hospitals, as well as national production of drugs and their distribution. The health system is decentralized through provincial and municipal health directorates, which are administratively subordinate to the provincial and municipal people's assemblies (local governments), from which they receive their budgets, nonmedical supplies, staff, and maintenance. They are technically subordinate to the Ministry of Public Health.[19] Each province has a Local Health System (SILOS), because of its size, the province of Havana has several. All form an extensive network of health facilities at all levels guaranteeing complete coverage of the population.

In addition to decentralization, other important features of the system are its preventive orientation, free character, and universality, total accessibility, local participation, and emphasis on planning.

Since 1984 the system has undergone major development through the introduction of the family doctor, the basic element in primary care. There were more than 6,000 of them, covering 37% of the country's population, in 1988. Because of the pace at which new medical graduates have joined the program, it is intended that coverage will be 100% by 1995-1996. Family doctors work closely with hospitals and other health institutions, which provide services to the population while keeping family doctors fully informed. The population thus obtains complete dispensary care, more direct follow-up of the chronically ill, direct health education, full immunization, prevention of risk factors, and community environmental control. This program is extended to various spheres in order to care for the population in its own occupational and educational environment.

In 1988 there were 333 inhabitants per physician and 177 per medical auxiliary. In 1989 the number of hospital beds per thousand population was 7.4, of which more than five were for medical care and the rest for social care. The hospital network spreads throughout the country with the support of rural hospitals belonging to the Rural Medical and Social Service. Hospital equipment is of high technological level and includes diag-

nostic ultrasound, computerized axial tomography, and nuclear magnetic resonance equipment and hyperbaric chambers. There are six heart centers, which in 1988 performed more than 1,700 surgical interventions. The ophthalmology program is also noted for its high medical and technological level.[20]

The health system depends totally on state financing. In 1960, expenditures on health represented 3 0% of the national product, and in 1986, 3.2%. Data available up to 1988 show that, in contrast to other countries in Latin America and the Caribbean which confronted the crisis and adjustment policies, the proportion of expenditure on investment was relatively high—23% in 1988.[21] Although the Cuban Government decided in 1989 not to reduce social expenditures, which cover the health sector, because of the crisis, the deterioration of the economy is such that the health system faces severe shortfalls of inputs and spare parts for equipment, which means accelerated deterioration. There is no precise information in this regard, however.

The radical changes in land use, agriculture, and fishing instituted after the revolution had significant effects on the population's food situation.[22] From 1965 to 1985, daily calorie consumption grew by 33%, until in 1986 it was 135% of minimum requirements. Nevertheless, the food situation has entered a stage of serious deterioration as a result of the economic emergency situation affecting the country. In 1989 there was an appreciable reduction in the domestic supply of foodstuffs. The diet began to suffer and calorie intake, which in 1980 had been 2,867 calories per day per inhabitant, fell to 2,848 calories in 1989. This is the result of the decline in production of some staples such as fish, produce, tubers, and fruit. Generally speaking, non-sugar cane agricultural production fell by almost 1% in 1989, and the number of cattle was 7% below that at the start of the decade, thus decreasing meat consumption per inhabitant. These indicators mark the beginning of severe food shortages which the country is experiencing and which have led not only to reorientation of productive resources toward food production, but also to strict rationing of basic consumption staples. School and hospital dining rooms have been given priority of supply in this context.

The housing situation and environmental sanitation

There has been a general deficit in housing, as evidenced by the fact that the cumulative deficit in 1985 was 888,000 dwellings.[23] This has required a major construction effort in the current decade. From 1981 to 1987, 465,190 masonry dwellings provided with water, electric lighting, sanitary services, and other communal facilities were built. Until 1981 there were marked differences in the standards of housing between the regions. In highly urbanized Plaza de la Revolución, 95% of dwellings were considered adequately constructed, but in the semiurbanized area of Cienfuegos the proportion was 70% and in the very rural area of Yateras, in Guantánamo, 58%. Housing quality has seen appreciable improvements since 1960, especially in rural areas. Seventy-three percent of rural dwellings were in bad condition in 1953, but this had decreased to 18% in 1987.

Restrictions began to be placed on the construction of private dwellings in 1986, but other kinds of construction such as that by the state and building "microbrigades," composed of settlers, were encouraged.

Between 1979 and 1982 there was one person per habitable area on average, and in 1981, five or more people lived in 38% of dwellings. In 1988, 65% of the country's population (and 82% of the urban population) was served by mains carrying chlorinated water, which in some cases was fluoridated to prevent dental caries. Thirty-seven percent of the population was connected to the sewerage network, and the remainder had individual systems for collecting liquid wastes. In 1980, only 9% of dwellings did not have toilets and 26 9% had no access to piped potable water. During the 1970s, 17% of dwellings did not have electricity, but in 1989 that proportion had fallen to 8%.

Although Cuba has no "misery belts," as are common around almost all Latin American cities, there are very localized problems of urban marginalization. Internal migration from the countryside to cities, and the slower pace of building in the 1970s, meant that, despite the disappearance of unhealthy districts from the capital and other major cities in the early 1960s, others appeared. Havana had a few marginal districts in 1989. It is estimated that 3% of the population (60,000 people) lived in such districts. This phenomenon is also seen in the city of Santiago, though on a smaller scale.[24]

The education situation

Illiteracy, which before 1960 affected 30% of the population, has been spectacularly reduced. In 1985 the adult literacy rate was 92.4%, and in 1990 it was estimated at 94%. Together, primary and secondary matriculation in 1986-1988 was 96%; it grew by 20% from 1970 to 1987. Ninety-two percent of youths in the corresponding age group attend intermediate schools, a level of secondary school attendance which is very high in the regional context. During that period the 13% difference which had existed between Cuba and developed countries in this regard fell to 1%. The 96% rate is also higher than that in countries with development similar to Cuba's (82% on average). University graduates (from higher education in general) numbered 26,022 in 1984-1985 and 27,513 in 1986-1987. More than half of the graduates in the latter period were women, which reflects a common pattern at the various levels of education. In 1987-1988, 29,282 scholarships were awarded in primary schools, 49,493 in intermediate schools, 122,190 in technical and professional schools, and 61,655 in universities. Moreover, no major differences are evident in school attendance at the regional level: the difference in school attendance between provinces is 2% to 3%.

All this does not mean that educational problems have been completely eradicated. Future plans should deal with the facts that, in absolute terms, it was estimated that 100,000 children were not attending either primary or secondary school in 1990 and there are still 600,000 illiterate adults.[25]

Social policy in recent decades has been designed to give priority attention to education and health. Expenditures on education in 1960 amounted to 5% of the national product, and in 1986 that proportion had increased to 6.2%. In countries with medium human development, those proportions were 2.5% and 4.2% in the same years. Expenditures on education represented 14.1% of public outlays in 1987-1988.

The situation of women

The life expectancy of women is 104.9% that of men. The adult literacy rate is higher among men (94%) than among women (91%). The latter rate is higher than the average rate among women in other countries with medium human development—around 71%—however.

A principle of the country's labor and social policy is providing opportunities for study or work to the entire population. With respect to the female population, this translates into increasing inclusion of women in the world of work. In 1980, 34.7% of working-age women (17 to 55 years) worked; in 1985, 43%, and in 1987, 44.4%. Of those who work, 68.1% do so in the service sector. The participation rate of women in work varies significantly from urban to rural areas. According to the 1981 census, their participation rate in the most urbanized sector, Plaza de la Revolución, was 49.3%, while in an extremely rural area such as Yateras, in Guantánamo, the rate was 28.3%. Buenavista, in Cienfuegos, which is typical of the semiurban area, had an intermediate rate of 38.8%. It should be noted that in the three areas in question, the participation rate of men was around 70%. A survey carried out in 1988 showed increases in participation by women in the economic activity in the three areas as follows: in the urban area, 59.7%; in the rural one, 40.7%, and in the semiurban one, 45.5%. It is also noteworthy that the differ-

ences between areas tended to be less accentuated.[26]

The same thing occurs in average years of school attendance which, according to the 1981 census, was 8.3 years in Plaza de la Revolución, 6.6 in Buenavista, and 5.5 in Yateras. The survey conducted seven years later indicated increases in average schooling of 9.6, 7.4, and 6.6 years, respectively. In conclusion, the policy aimed at reducing the gap in living standards between the population in the countryside and that in cities has meant that from 1953 to 1981, the school attendance rate increased 2.6 times in Yateras, 2.1 times in Buenavista, and 1.7 times in Plaza de la Revolución. It is significant that in the especially rural area of Yateras, the number of years of schooling of women increased from three to seven years in the space of a generation.

The entry of women into the labor market is facilitated by the existence of *Círculos Infantiles*, or centers which care for and feed children aged 45 days to 6 years, and which have approximately a million spaces.

With respect to fertility indicators, the overall rate of 1.8 children per woman during the period 1985-1990 gives Cuba the lowest rate in Latin America and is comparable only with Barbados. The difference in this indicator with respect to industrialized countries was 50 points in countries with medium human development, while there was no difference in Cuba.

According to a survey carried out in 1988, 100% of women had knowledge of contraceptive methods and 85% of them had used such methods. It is believed that in Cuba, the use of contraceptives is not determined only by a woman's education level but also by the fact that women work. Women workers in urban and rural areas have a greater tendency to use contraceptives. The current concern of health authorities is the lower use of such methods by the female population aged 15 to 19 years, which has resulted in an increase in fertility rates and adolescent pregnancy Generally speaking, the reduction in the fertility rate of Cuban women is attributable to the changes which have occurred in access to health education and services, and to the increase in their participation in work and community activity.

As for male-female differences (women as a percentage of men), Cuba's indicators reflect a situation very favorable to women, compared with other developing countries. In the 1980s these proportions were: life expectancy, 104.9%; literacy, 97%; average schooling, 93%; matriculation in primary school, 98%; matriculation in secondary school, 112%, and university matriculation, 142%. Only in work participation was the proportion 46%, compared with 66% in countries with medium human development, something that is explained by women's high participation at all educational levels. Finally, their parliamentary participation is 51%, compared with an average of 22% in similar countries.[27]

The human rights situation

Since the start of the "Process of rectifying errors and negative tendencies" in 1986, there has been a renewal of violations of human rights and persecution of dissidents. In the context of the severe economic crisis affecting the country, this has become acute since 1990 and has caused demands at home and abroad for substantial reforms and changes in the Cuban political system. Coercion and detentions of dissidents have increased, despite which domestic opposition has continued to grow (the independent Union of Cuban Workers, Martí Association of Opposition to the Regime, Alternative Criterion). Cuba has accordingly been denounced by various human rights agencies.

Risk of natural disasters

Like all Caribbean countries, Cuba is at high risk of cyclones and hurricanes. In November 1985, Hurricane Kate, the most recent, caused damage in eight provinces, destroyed crops, damaged agricultural and industrial facilities, electric power lines, warehouses, sugar mills, and

roads; it also destroyed or seriously damaged 80,000 dwellings, especially in rural areas. Productive activities were also affected indirectly because of the mobilization of workers for rescue and reconstruction efforts.

There are also other risk factors, such as floods and droughts. There were severe floods in 1977, 1983, and 1986, particularly in the east, which at times were accompanied by landslides and avalanches of earth. Such phenomena have been aggravated by large-scale deforestation, which has begun to decline only in recent years through massive campaigns of reforestation with lumber species. In addition, from 1982 to 1985 there was a drought which severely affected production and in particular agriculture, with loss of harvested area.

A factor that helps minimize risks and especially the number of victims is the high degree of community organization for emergencies and the existence of agencies and plans of action for dealing with disasters.

SOURCES

* As noted in the introduction, this chapter does not include an institutional analysis of the Cuban Red Cross because it decided not to take part in the Study Since the Study was completed, however, the Cuban Red Cross has shown great openness to international cooperation.

1. Sources: (a) United Nations Development Program (UNDP), *Desarrollo humano. Informe 1991*, Bogotá, UNDP/Tercer Mundo, 1991, Table 2; (b), (c), (d), and (e) UNDP, *Desarrollo humano. Informe 1992*, Bogotá, UNDP/Tercer Mundo, 1992, Tables 1, 2, 11, and 12.
2. Carmelo Mesa-Lago, "La economía cubana en los ochenta: el retorno de la ideología." In: Sergio G. Roca (ed.), *Socialist Cuba Past interpretation and future challenges*, Boulder, Colorado, Westview Press, 1988, reproduced in *Síntesis* 15:243-44 (September-December 1991). And José Luis Rodríguez García, "El desarrollo alcanzado en los años de la revolución," *Síntesis* 15:291 (September-December 1991).
3. UNDP, *Desarrollo humano: Informe 1990*, Bogotá, UNDP/Tercer Mundo. 1991, Table 1.
4. Rodríguez García 1991, p. 290, and Jorge Pérez López, "Nadando contra corriente: implicaciones para Cuba de las reformas en las relaciones económicas internacionales soviéticas y de los países de Europa del este," *Journal of Interamerican Studies and World Affairs* (Miami) 2 (Summer 1991), reproduced in *Síntesis* 15.307 (September-December 1991).
5. Mesa-Lago 1988, p. 243.
6. United Nations Economic Commission for Latin America and the Caribbean (ECLAC). *Notas para el estudio económico de América Latina y el Caribe 1985: Cuba*. Mexico City, ECLAC, 1986, p. 3
7. Pérez López 1991, p. 326.
8. Only a fifth of the country's buses were operating in 1988. See ECLAC. *Estudio económico de América Latina y el Caribe 1988* Santiago, Chile, ECLAC, 1989, p. 292.
9. Pérez López 1991, p. 330.
10. The Hungarian "Ikarus" buses, for instance.
11. CRIES. "Cuba en la hora de los hornos," *Envío* (Managua) 122 (December 1991).
12. With measures such as the Torricelli law, of October 1992, which enables the U.S. Government to punish U S. companies whose branches or offices in other countries do business with Cuba.
13. Mesa-Lago 1988, p. 261.
14. Pan American Health Organization (PAHO) *Las condiciones de salud en las Américas*. Washington, D.C., PAHO, 1990. Vol. II, p. 109
15. Data for 1988. PAHO 1990, p. 109.
16. PAHO 1990, p. 109, and UNDP 1992, Table 11.
17. United Nations Children's Fund (UNICEF). *Estado mundial de la infancia 1991*. Barcelona, UNICEF, 1991, p 72.
18. PAHO. *Boletín Epidemiológico*. Washington, D.C., PAHO, 13(2):15 (June 1992).
19. PAHO 1990, p. 113.
20. PAHO 1990, p. 114
21. PAHO 1990, p. 114.
22. PAHO 1990, p. 107.
23. Rodríguez García 1991, p. 291.
24. PAHO 1990, p 107
25. UNDP 1992, Table 3.
26. International Labor Organization (ILO). *Cuban women · changing roles and population trends*. Geneva, ILO, 1988, p. 104. The increase in the rate of women's participation in work in rural areas is thought to be skewed upward because the survey was done during the harvest season.
27. UNDP 1992, Table 9.