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Contrasting Population Challenges: Cuba and the Dominican Republic in the Next Millenium

by
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ABSTRACT

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CONTRASTING POPULATION CHALLENGES:

Cuba and the Dominican Republic in the Next Millennium

This paper examines the population situation in Cuba and the Dominican Republic (D.R.) since 1950, and sometimes 1960, up to 1997, and then thinks of what may happen in the first quarter, as well as the first half of the 21st century, as we begin the next 100 years.

The D.R. is smaller in population size than Cuba, but it is closing the gap, and by the first quarter of the 21st century they will be even. The next quarter will see D.R. pull ahead of Cuba. Cuba mortality will increase ahead of the D.R. The D.R. fertility will fall towards that of Cuba. Emigration potential is high, but destinations are missing.

Internal migration is a force in determining the spatial distribution of the population. Santo Domingo has passed Havana and will continue to distance itself in population size. Santiago de los Caballeros has passed Santiago de Cuba in population size and is now double the size. Havana and Santo Domingo are good examples of primate cities.

Cuba has take demographic issues into planning its economic and social strategies. The D.R. recognizes the importance of demographic forces but is much less successful in terms of integrating them into policies and plans.

These demographic variables must be considered by these societies if they hope to have a sustainable development and an improved quality of life as they move into the next millennium.

KEY WORDS: Cuba, Dominican Republic, population size, fertility, mortality, urbanization.

CONTRASTING POPULATION CHALLENGES: CUBA AND THE DOMINICAN REPUBLIC IN THE NEXT MILLENNIUM

1.1 Introduction

In this paper, the current demographic situation in Cuba and the Dominican Republic will be highlighted. The goal is to see how they have arrived at the present situation. As they enter the twenty first century the focus is on where they are headed. The demographic situation is considered with respect to the sustainable development and how policies have brought them where they are and where they are likely heading.

The World Population Conference, starting with Bucharest 1974, Mexico City 1984 and Cairo 1994 has focussed on the need for integration of government policies and programmes to take into consideration the demographic forces which are likely to negate socio-economic plans if they go ignored. In all three conferences the emphasis has been there. The latest manifestation of this from the International Conference on Population and Development (ICPD, 1994) in Cairo states:

> "3.6 Governments, international agencies, non-governmental organizations and other concerned parties should undertake timely and periodic reviews of their developmental strategies, with the aim of assessing progress towards integrating population into development and environmental programmes that take into account patterns of production and consumption and seek to bring about population trends consistent with the achievement of sustainable development and the improvement of the quality of life." (UN, 1995)

The Economic Commission for Latin America and the Caribbean (ECLAC) guiding principle at this time is "Social Equity and Changing Production Patterns: An Integrated Approach", 1992. This is a plan adopted by the countries of Latin America and the Caribbean to move forward in the nineties and into the twenty first century. The 1980s were the "lost decade" for the region. Only Chile made economic progress at the macro level starting in 1983. But poverty increased in Chile between 1983 and 1991. The ECLAC headquarters is in Santiago, Chile. The plan for Latin America and the Caribbean is to follow the lead of Chile but with social equity. Changing production patterns but maintaining social equity is a road to sustainable development and a good quality of life. An integrated approach will be one with social and economic approach taking into consideration population forces but at all times protecting the physical environment and making it possible for a sustainable development. Cuba and the Dominican Republic voted for this plan of action. They were in Cairo in 1994, and voted for the Programme of Action, 1994.

These commitments by the governments of Cuba and the Dominican Republic (D.R.), if they are institutionalized between now and the into the 21st century, will have important implications for the societies. They will lead economic progress in a global economy, improved quality of life and sustainable development.

Cuba, a socialist republic since 1960, has achieved some of these recommendations but within the global environment, poverty has increased. The Dominican Republic has achieved less in a demographic transition, programmes have worked less and poverty is still rampant.

As we enter into the first century of the millennium the Dominican Republic is behind Cuba in a demographic transition sense. Fertility and the rate of growth are higher in D.R. than in Cuba. Mortality, they are almost the same. The rate of urbanization is higher in the D.R. but Cuba has a higher proportion of its population living in urban centres. Santo Domingo is larger than Havana. Both countries have pent up emigration tendencies. Internal migration is higher in the D.R. than in Cuba. The economies are similarly based, and in poor shape. There are environmental problems of many kinds.

2.1 The Demographic Situation

Cuba and the Dominican Republic (D.R.) in area, are the two largest countries (42,402 and 18,680 sq. miles respectively) in the Caribbean. Cuba is more than twice the size of D.R. The population of Cuba in 1998 was just over 11 million and the D.R. was over 8 million. These two account for 52 percent of the population of the Caribbean. The density of population is 262 for Cuba and 446 for the D.R. (Population Reference Bureau, 1998).

The crude birth rate in Cuba is 14 and in the D.R. it is 27. The total fertility rate in Cuba is 1.4 and in the D.R. is 3.2. Cuba's birth rate is satisfactory to the government and the D.R. rate is too high. Cuba's fertility is low. Contraception is a major factor. Contraceptive use is higher in Cuba than in the D.R.

The crude death rate in the D.R. is about 6 and the rate in Cuba is 7. The age distribution in Cuba reflects an aging population under low fertility. The infant mortality rate of Cuba is around 7 and that of the D.R. is about 47. One would suspect that infant mortality is going up in Cuba during this severe economic crisis when food is very scarce and medicine is in short supply. Under the severe economic problems of Cuba life expectancy may fall. Cuba's life expectancy is currently 75 for males and females and in the D.R. is 70 (Population Reference Bureau, 1998).

The natural increase of the population for Cuba is 0.6 and that for the D.R. is 2.1 Cuba is well ahead of the D.R. in demographic transition. Both countries have minimal emigration. The net loss for the D.R. is greater than Cuba. However, the rate of natural increase is very close to the rate of growth of the population in both countries.

Internal migration is greater in the D.R. than in Cuba. The government of Cuba has plans which retard the free flow of migrants. Whereas in the Dominican Republic migration of rural to urban and urban to urban are well manifested and unrestricted by government policies.

Urbanization in the D.R. is much more rapid than in Cuba. Current growth of the urban population in the D.R. is around 3.5 percent and in Cuba it is about 1.5 percent (Lattes, 1995). The urban population in Cuba is around 74 percent and it is 62 percent of the total population in the D.R. (Population Reference Bureau, 1998). Santo Domingo, the capital of the Dominican Republic, is a rapidly expanding city with a population of 3.3 million. Havana, the capital of Cuba, has a population of 2.2 million and is growing very slowly. Cuban government plans have retarded the growth of Havana, mainly through discouraging of internal migration. Both capital cities are primate cities. Havana's population is about four times that of Santiago de Cuba, the second largest city whose population is around one-half million. Santo Domingo has a population of around 3.3 million and the second largest city in the Dominican Republic, Santiago de los Caballeros, has a population of 1.3 million (United Nations, 1996). Cuba's Santiago is growing much less than the Dominican Republic's Santiago. Havana in 1996 had 20.3 percent of the total Cuban population, and 26.7 percent of the total urban population. These figures have changed only slightly in the past ten years. Santo Domingo, in 1996, had 41.2 percent of the total population and 65.8 percent of the urban population. Santo Domingo and Santiago de los Caballeros are increasing their population relative to the country and the urban population.

The rate of growth of the urban population and the size of the cities have tremendous effect on poverty, quality of life and the possibility of a sustainable development. Both countries are especially concerned about the distribution of the population including the urban population.

Cuba has an aging population while the Dominican Republic has a young population. The aging of the population in Cuba, is in part, why the mortality level is a little above the D.R. The D.R. younger population is a result of its relatively high fertility, now as well as in the recent past. Twenty two percent of the Cuban population is less than 15; and in the D.R. it is 36 percent. The population 65 years and over in Cuba is 9 percent of the population and in the D.R. it is only 4 percent.

In summary, Cuba is very much like Puerto Rico, Barbados, Chile, Argentina and Uruguay. In Latin American and the Caribbean they are the leaders in demographic transition. These countries have low fertility, increasing mortality because of an aging population, low infant mortality, low rate of growth, high levels of urbanization, urban to urban migration, and declining rural population. The Dominican Republic falls into the group with Jamaica, Colombia, Ecuador, Venezuela, Mexico and Costa Rica. They are behind Cuba in the demographic transition and have demographic variables that are different from the ones named above. They are: fertility is higher, low mortality level, a young population, higher infant mortality level, rates of growth close to two percent, lower level of urbanization, rural to urban immigration and low growth in rural population.

3.1 Population Since 1960

In 1960, Cuba is about to establish a socialist government. The Dominican Republic (D.R.) was a capitalist state without a revolution. Cuba was into the third stage of the demographic transition. The Dominican Republic was in the second stage of the demographic transition. The rate of growth of the Cuban population was low, since fertility was low and so was mortality. In the D.R., fertility was very high and mortality was high and declining and the population was expanding.

The population of Cuba in 1960 was nearly 7 million. In 1970 it was 8.5 million, in 1980, 9.7 million, 1990, 10.6 million, and in 1998 it was 11.1 million. Between 1950 and 1960 the population growth rate was around 1.75 percent, 1960-70 it was close to 2.0 percent, 1970-1980 it was 1.3 percent and 1980 to 1990 it was 0.88 percent (United Nations, 1994). Since 1990-1998 it is around 0.70 percent (Population Reference Bureau, 1998; World Bank, 1998). The Cuban government since the Revolution of 1959 has not had a plan to reduce the rate of growth or keep down the population size. However, Cuba is being transformed into a modern society. Up until the period since 1993, the Cuban society has experienced much progress in the areas of health, distribution of well-being, education and progress in the quality of life. Contraception and abortion are available. There are improvements in the quality of life. Cuban government policies are not directed towards the demographic forces but they impacted on them. Under the socialist government fertility has continued its decline, mortality is low and the rate of population growth has been held low. Net migration loss is small.

The Dominican Republic (D.R.) had a population of:

	1960	1970	1980	1990	1998
Million:	3.2	4.4	5.7	7.1	8.3

Source: (UN, 1994) (PRB, 1998)

This population has been rapidly expanding. In 30 years it has been doubled (1960-1990). The rate of growth of the population over this period would suggest that the D.R. is in the second and fast growing period of the demographic transition.

The growth rate of the population over this period is as follows (percent per year):

	1950-60	1960-70	1970-80	1980-90	1990-98
Present	3.2	3.2	2.5	2.2	2.1

Source: (UN, 1994) (PRB, 1998)

During the period 1950-1970, the population growth rate is very high. Since 1970 it is slowing down gradually. The Dominican Republic was a signatory at the World Population Conferences in Bucharest 1974, Mexico City 1984, and Cairo 1994. The government regards the rate of growth and fertility as too high in terms of their economic development and improvement to the quality of life. The D.R. government has supported family planning. Contraception is available for all who would seek it. The government of the D.R. was one of the first to seek outside support for providing family planning. The growth rate of the population has declined but it is still considered as too high. The crude birth rate is being influenced by the increasing larger cohort entering the childbearing ages. The total fertility rate is more in line with the perspective fertility of the women.

Cuba is ahead of the D.R. in terms of slowing down the growth of the total population. The difference between them is quite marked. Cuba's population of 1960 has not been doubled up to 1998; it is just about 1.6 times. However, the D.R. population between 1960 and 1998 is 2.6 times greater in 1998 than it was in 1960. Cuba in 1960, in the first year of the revolution, was well placed as its demographic variables responded to modernizing forces within the society. The socialist revolution and its government in tackling socio-economic planning, brought in plans that would have impacted on demographic concerns. The demographic transition has continued up to the present period. The Dominican Republic in 1960 was under severe demographic pressure. They adopted family planning, which will eventually reduce fertility. The modernizing process is at work in the D.R. However, economic and social plans are not as effective as they are under the socialist government in Cuba.

3.2 Fertility Since 160.

Fertility in Cuba in 1960, the crude birth rate (CBR), was relatively low compared to the Dominican Republic (30 vs. 50). In 1970 it was 28 for Cuba and 41

for the D.R. The 1980 figures are 14 for Cuba and 26 for the D.R. By 1990 Cuba had a crude birth rate of 17 and the D.R. 27. The figures for 1997 are 14 for Cuba and 27 for the D.R. (United Nations, 1994; World Bank, 1993). Cuba was already, by 1960, approaching the third demographic transition stage and the Dominican Republic was in the rapid population growth in the second stage. The D.R. experienced rapid fertility decline over this period. Changes in social and economic conditions and establishment of family planning clinics were instrumental. Cuba continued its decline in the period through significant changes in the status of women, availability of contraception and social security for all.

The total fertility rate (TFR) for Cuba around 1960 was 3.5 and for the D.R. it was 7.5. By 1970 the TFR for Cuba was around 3.8 and that for the D.R. was 6.3. In 1980 the TFR for Cuba was 2.0 and for the D.R. it was 4.2. The TFR for Cuba was around 1.5 and for the D.R. it was 3.1 in 1990 (World Bank, 1988; United Nations, 1994; United Nations, 1996). In 1997, Cuba had a total fertility rate of 1.4 and the Dominican Republic 3.2 (Population Reference Bureau, 1988). Fertility is very low in Cuba and high in the D.R. The Cuba fertility rate is comparable to the developed societies as well as Barbados and Martinique. The D.R. fertility is in line with a number of countries in Latin America and the Caribbean, such as Jamaica, Mexico, Costa Rica, Colombia and Venezuela.

3.3 Mortality Since 1960

The mortality levels were declining in 1960 in both Cuba and the Dominican Republic. The crude death rate (CDR) in Cuba was around 10 and in the D.R. it was about 17. In 1970 it was 8 in Cuba and 12 for the D.R. Cuba's rate went down to 6 in 1980 and remains about 7 in 1990 and up to 1997. Since the Cuban population is aging, poverty is on the increase, medicine is very scarce and food is in short supply, we can expect a gradual increase in mortality. The Dominican Republic had a CDR of 7 in 1980; it went down to 5 by 1990 and was 6 in 1997. These figures are related to a young population. The infant mortality level is a factor in these figures. As infant mortality reaches a low level there will be a counteracting effect as the average age of this population is increasing. (References, see below)

Infant mortality levels were relatively high in Cuba in 1960 (70) and very high in the Dominican Republic (132). By 1980 they have fallen to 50 for Cuba and 105 for the D.R. Cuba's went to 20 in 1980 and in 1997 it was 8. These are very low infant mortality rates and they marked the progress of health, child care and reduction in malnutrition. However, the economic crisis in Cuba if it persists will affect upward the infant mortality rate. In the Dominican Republic (D.R.) it fell to 74 in 1980, 59 in 1990 and 49 in 1997. There is still much room for progress here. This will require

more child care, more maternal care, less poverty, better nutrition, more births delivered in hospital and purer water supplies. (United Nations, 1994; Population Reference Bureau, 1998; World Bank, 1998; United Nations, 1996; Thomas, 1994).

Life expectancy at birth (e°) has been relatively high in Cuba since 1960, but it was low in the Dominican Republic and has been increasing since them. It has gone from 62 in 1960, 68 in 1970, 74 in 1980, 76 in 1990 and remains about the same in 1997 for Cuba. These levels of life expectancy are typical of the developed countries of Europe and most of the Caribbean region, Costa Rica, Panama, Chile and Uruguay. The D.R. life expectancy at birth in 1960 was 50 years, in 1970 it was 57, in 1980 it was 64, 67 in 1990, and by 1997 it was 70 (United Nations, 1994; Population Reference Bureau, 1998; World Bank, 1998; United Nations, 1996; Thomas, 1994.)

The Dominican Republic (D.R.) has made gains in life expectancy as infant mortality declined. Conditions of life are having an impact on the life expectancy at birth. Except for Haiti, the D.R. life expectancy is currently slightly behind those of the other countries in the Caribbean.

3.4 International Migration: 1960-1998

International migration from Cuba and the Dominican Republic since 1960 has been mainly emigration. This period saw rapid population increase in the Dominican Republic and much less in Cuba. Emigration for nationals from these two countries is very limited. There is very little immigration to Cuba; but there are some Haitians in the Dominican Republic. However, both countries have had net migration loss since 1960.

The 1970 Census had over 130,00 migrants in Cuba from Latin American and the Caribbean and other countries. Over 25, 000 of these were from Latin America and the Caribbean. Most of these were from Haiti and Jamaica, who had migrated before 1960. Spanish born is perhaps the largest group within the overall total (Pellegrino, 1995).

The 1971 Census of the Dominican Republic found over 32,000 immigrants. Over 21, 000 of these are from Latin America and the Caribbean. Most of these are from the neighbouring country of Haiti. There are a significant number of Spanish born (Pellegrino, 1995).

Most of the emigrants from these two countries are in the United States. The 1970, 1980 and 1990 Censuses showed that for Cuba there were over 439,000,

608,000, and 737,000 respectively. Most of these are in Florida, New Jersey and Puerto Rico. From the Dominican Republic, in the same 3 Censuses, there were over 61,00, 169,000, and 348,000 respectively. New York, Florida and Puerto Rico are the major concentrations of these (Pellegrino, 1995).

The Cuban born in the United States have been before 1960 as well as since the Cuban Revolution. By far, the majority of these left after the 1959 Revolution. There were also the Mariel boat lift and more recently, barge and boat flights from Cuba to Florida. The emigrants from the Dominican Republic have been more consistent over time. Some of these have been undocumented. There is a large Dominican group in Puerto Rico.

The potential for emigration from Cuba and the Dominican Republic, as it is for all Caribbean and Latin American countries, is tremendous. Economic conditions in Cuba and the D.R. are in crisis situations. They are close to the United States and Canada and are aware of conditions in these countries, and many would-be migrants have relatives and friends in both countries, but much more so in the United States.

3.5 Spatial Distribution of the Population: 1960-1998

The density of population in Cuba is 262 persons per square mile and in the Dominican Republic it is 446 in 1997 (Population Reference Bureau, 1998). In the Caribbean region, these are relatively low in comparison with Barbados (1,596), Haiti (708), Jamaica (613), and Puerto Rico (1,139).

The population of Cuba is well distributed across the land area and so it is for the Dominican Republic. The major concentration of population for Cuba is Havana and the provinces of Havana and Santiago. In the case of the D.R. the major concentrations are around Santo Domingo and Santiago.

These two countries have their major industries in agriculture, tourism and mining. Cuba's main exports are sugar, rum and cigars and also nickel, cobalt and oil. The Dominican Republic's major industries are sugar, coffee, manufactured products, gold and silver. In spite of the primary nature of their industry, the rural population is declining and the urban population is growing. Cuba's rural population is declining by 1.2 percent and the rural population of the D.R. has recently started its decline. The urban population of Cuba is growing at 1.3 percent and that of the D.R. by 3.1 percent (United Nations, 1996). The rural population is declining by rural to urban migration. This is much less in volume in Cuba than in the D.R.

Rural to urban and urban to urban migration are special features of the spatial

distribution of the population in Cuba. Urban to urban migration is more dominant. However, internal migration has been retarded by government plans in Cuba. Government plans an policies have restricted the growth of Havana and Santiago de Cuba and has facilitated the growth of intermediate cities and some new growth areas with specialized industry such as mining and tourism. Equalizing wages between urban and rural areas have reduced rural to urban migration.

Internal migration in the Dominican Republic is much more dynamic. Santo Domingo and Santiago de los Caballeros are growing very rapidly. There were well behind Havana and Santiago de Cuba in 1960 and by 1980 they have surpassed them and Santo Domingo will double Havana in the next few years, and Santiago de los Caballeros has already done so to Santiago de Cuba. Cuba's free trade zone for industry is relatively new and it does not attract American industry since the United States embargo is still there. However, the free trade zone areas of the Dominican Republic have been quite successful. They have led to redistribution of internal migration as both rural and urban residents move into these zones to obtain employment. The areas between Santo Domingo and Santiago where most of these industries are located are growing urban zones.

The spatial distribution of the population of Cuba and the Dominican Republic have important consequences for the protection of the environment and a sustainable development. The growing urban areas along the sea coasts cast delicate environments in jeopardy.

4.1 Urbanization in Cuba and the Dominican Republic

An examination of the urban process in Cuba and the Dominican Republic since 1950 yield some interesting aspects. The rural population of Cuba was still growing between 1950 and 1974. In 1975 the rural population began to decline in numbers. The Dominican Republic had a growing rural population until 1989. In 1990 the rural population declined in numbers (UN 1992). The decline in the rural population for Cuba and the D.R. have continued up to 1998 and it will continue up to 2025. Between 1950 and 1970, the slow down in the rate of the rural population in Cuba went from +0.74 percent down to +0.59 percent in the four, five-year periods. In the case of the Dominican Republic these four 5-year periods saw the rural population going down in rates from +2.20 percent down to 1.34 percent. Since 1970-75 the Cuba’s rate of decline went into the negative direction from -0.37 and it will continue to decline until 2025 with even larger percentages. The period 1990-95, the D.R. rural population saw its first negative decline of -0.25 percent. This decline will continue at large rates until 2025 (UN, 1992). During this period 1950 to 2025, the D.R. rural population rate of change outpaced that of Cuba in both the positive and

negative direction. The decline of the rural population is due mainly to internal migration. This internal migration was one of the determinants of the rapidly growing urban population (United Nations, 1992). The total population is growing rapidly and urbanization is growing the most rapidly, even though fertility is lower in urban areas than in rural areas. Mortality levels between urban and rural areas are not very significantly different.

The period beginning with 1950 and extending into the 21st century saw the level of urbanization to be higher in Cuba than in the Dominican Republic. In 1950 Cuba was close to 50 percent and the D.R. was close to 25 percent. By 1960, Cuba was 55 percent and the D.R. was 30 percent. In 1970 the figures were 60 for Cuba and 40 for the Dominican Republic. In 1980, Cuba was 68 percent and the D.R. had just crossed the 50 percent of its population living in urban areas. By 1990 Cuba was around 73 percent and the D.R. was 60 percent (United Nations, 1992). In 1997 Cuba is around 74 percent and the D.R. is 62 percent. Cuba will continue to be ahead of the D.R. up to 2025 when Cuba could be 86 and the D.R. at 80 percent (Population Reference Bureau, 1998; United Nations, 1992).

Cuba was close to fifty percent urban by 1950 and it took the Dominican Republic until 1980 to be 50 percent urban. Cuba was always ahead of the D.R. in the demographic transition and it is reflected in their spatial distribution. As these populations in the urban areas get to above 70 percent, the rural to urban migration will play less of a role in the urbanization process. The rate by which the urban population grows will be reduced as the percent urban increases above 70 percent.

Governmental plans in both countries have shown concern over the rate by which the percentage living in urban areas are increasing. Cuban policies and plans have succeeded in delimiting the rate of urbanization. These plans give wages that are about the same in rural and urban areas. Central planning allows this, since wages are paid by the government and are not influenced by supply and demand (Aldana-Martinez, 1978; Baroni-Bassoni, 1988; Cabrera Trimiño, 1993; Hernandez-Castellon, 1988; Landstreet, 1975, 1977; Landstreet and Mundigo, 1983). In addition, housing improved in the rural areas as well as education and health care. This is not true for the Dominican Republic where urbanization and internal migration have been less restricted even though the government is aware of the implications for a sustainable development. Some government policies have induced urbanization, such as the free trade zone and providing higher wages in urban areas, better education and health services in the cities and towns (Portes and Lungo, 1992; Ramirez, 1992, 1993; Lozano, 1993; García Tamayo and Rodríquez, 1992; Mesa-Lago, 1992).

The rate of change of the urban population in Dominican Republic and Cuba

since 1950 have been tremendous in the D.R. and much lower in Cuba. Cuba's rate of change of the urban population was under 3 percent in 1950-1955, and barely rose to above 3 percent after that, and into the 1990s it is about 1.5 percent. The D.R. rate of growth of the urban population was above 5 percent in 1950 to 1975 and up to the 1990s it is between 4.5 and 3 percent. The D.R. rate of urbanization compared to Cuba is between 1.5 percent and up to 3 percent higher. The D.R. urban population has been expanding very rapidly. Plans and policies to curtail it have not worked. The demographic variables are not well integrated into social and economic policies and plans. However, policies and plans are less effective in the D.R. than in Cuba. The Cuban government slowed down the rate of urbanization especially after the revolution of 1959. There has been urban growth but it has been quite manageable except for this current economic crisis beginning in 1993. The governments of the D.R. and Cuba are aware of the impending level of urbanization and its consequences for a sustainable development. As they approach the 21st century, the urbanization process is still viewed as having many implications, some good and most bad for reaching a good quality of life. The rate of urbanization will continue to be about twice the rate of growth of the total population into the first quarter of the new century.

4.2 Cities in Cuba and The Dominican Republic

The most important part of the spatial distribution of the population in Latin America and the Caribbean is the growth of towns and cities. In these towns and cities the pressure of population has its greatest force on the social and economic aspects of the society. The cities bring to the forefront all the demographic forces in interaction with poverty, housing problems, sewage and garbage disposals, water, air pollution, social pathology, underemployment, unemployment, infrastructure of roads, urban transit, communications, education, health and cultural activities. Rural population is more easily ignored; the urban population living in large cities are much more difficult to neglect. In Latin America and the Caribbean, the capital cities, with few exceptions, are the major urban conglomeration. They are the epitome of a primate city and some of these have been classified as mega cities. Santo Domingo and Havana are the capitals of the Dominican Republic and Cuba; they are primate cities, and even though they are not classified as mega cities, they are indeed having the same impact on the society as Buenos Aires and Mexico City have on Argentina and Mexico.

Cuba has a larger population than the Dominican Republic. Its level of urbanization is higher than the D.R. In recent times Havana and Santiago de Cuba were larger in population than Santo Domino and Santiago de los Caballeros. In 1996, the two major cities of the D.R. were away ahead of the two largest cities of Cuba. Santo Domingo, in 1996, has a population of 3.3 million and Havana 2.2 million.

Santiago de los Caballeros has a population of 1.3 million and Santiago de Cuba is about 0.5 million. By 2015 Havana will reach about 2.5 million and Santo Domingo will be about 4.7 million in 2015. Santiago de los Caballeros will be over 2 million and Santiago de Cuba will be about 0.75 million in 2015 (United Nations, 1996). It is obvious that the two Dominican cities are growing much faster than the two in Cuba. Government policies and plans have held down the growth of Havana and Santiago de Cuba. These plans and policies have affected wages, housing, internal migration, established new growth centres and control of infrastructures within the cities. On the other hand, concern of the government in the Dominican Republic has not materialized into any effective way of slowing down the population growth in Santo Domingo and Santiago de los Caballeros. Indeed, the establishment of free trade zones in these two cities have promoted their further expansion.

Havana and Santo Domingo in 1950 were the reverse in population size. Havana was about 1.1 million and Santo Domingo was about 219,000. By 1960 Havana was 1.415 million and Santo Domingo was 446, 000. By 1970 Havana was 1.745 million and Santo Domingo was 838,000. The government of Cuba, after the 1959 revolution is now having an effect on the growth of Havana. Santo Domingo is in a rapid growth period. The government of the Dominican Republic is trying to reduce fertility, but internal migration and urbanization are expanding (United Nations, 1992).

The 1980 population of Havana and Santo Domingo are 1.909 million and 1.398 million respectively. In 1990, Havana had a population of 2.124 million and Santo Domingo had a population of 2.203 million. Santo Domingo has surpassed Havana (United Nations, 1992). As shown above, it will continue to outpace Havana. By the year 2025, Santo Domingo will be twice as large as Havana. However, in the 21st century, Havana may take on a new growth period, since there are more and more tendencies to relax government control of the economy under the new window on capitalism.

It is clear that the growth rate of Havana has been small relative to that of Santo Domingo. Between 1950 and 1970, Havana was growing at 2.10 percent per annum and Santo Domingo was growing at around 6.5 percent per year. Even before the central planning of the Cuban government was really felt, Havana was increasing at much less than Santo Domingo. This is related to their position in the demographic transition. Cuba is well ahead of the D.R. Between 1970 and 1995, Havana was increasing its population by about 1.0 percent. Santo Domingo was growing between 1970 and 1985 by just over 5 percent; and between 1985 and 1995 it was growing by about 3.5 percent (United Nations, 1992). In this period since 1970 to 1995, Santo Domingo was still growing rapidly and Havana's rate of increase has been retarded by government plans and by its place in the demographic transition.

In 1950, about 40 percent of the urban population lived in Havana and Santo Domingo. By 1985, Santo Domingo had 50 percent of the urban population and Havana had 28 percent. In 1996 Havana had 27 percent and Santo Domingo had 66 percent of the urban population (United Nations, 1992; World Bank, 1998). Havana in 1996 had 21 percent of the total population and Santo Domingo had 58 percent. Santo Domingo has a higher primacy than Havana. It is even more a dynamic force within the Dominican Republic than Havana is in Cuba. Havana has gained slowly in it spatial area, but Santo Domingo has gown rapidly in the north, east and west.

In addition to Havana and Santiago de Cuba three are other sizeable cities in Cuba. The province of Havana has two cities of over 50,000. Camaqüey and Holquín are next in size after Santiago with populations of over 300,000 and 250,000. Havana and the capital of the provinces plus Manzanillo account for about 3/4s of the urban population living in cities of sizes 20,000 and above. Some of these cities have been identified as growth centres and some of the new expanding cities are related to mining, manufacturing and tourism.

The capital of the province of the Dominican Republic, excluding Santo Domingo and Santiago, is dominated by these two cities. Puerto Plata is holding its own since it is the main tourism centre. The cities are growing but to a lesser extent than Santo Domingo and Santiago. These two are the centres of commerce and industry. The internal migration are mainly directed to these two cities.

The Cuban government has been more successful at influencing migration and its destination, and in so doing the rate of growth of urban places. The government of the Dominican Republic is also concerned but the political will and avenues to influence migration and urbanization are not there. Cuba has been able to integrate demographic, social and economic planning to achieve some goals of the society. The Dominican Republic has been less successful.

4.1 Conclusions

The comparison of population challenges in Cuba and the Dominican Republic (D.R.) in the next millennium is a formidable task. The horizon for most of us extends into the first quarter of the 21st century. Stretching it, is possible to think of the first half of the 21st century. The two largest Spanish speaking countries of the Caribbean area account for 52 percent of the population of the region in 1998. Geographically, they resemble each other. They are not as densely settled as some of their neighbours (Haiti, Jamaica and Puerto Rico). Their agricultural potential is impressive. They have some minerals. There is great potential for tourism. Their economies are in crisis. Poverty levels are increasing. Cuba has a history of introducing demographic concerns

into it policies and plans. The Dominican Republic is conscious of the impact of demographic variables on its policies and plans. The government of Cuba has more power to institutionalize plans and policies. The D.R. government has reduced fertility by establishing family planning clinics, but they have not influenced the spatial distribution of its population.

By the first quarter of the 21st century, the population size of the Dominican Republic will be equal to that of Cuba. Cuba is growing slowly and the D.R. more rapidly. By the end of the first 50 years of the new millennium, the population of the D.R. will exceed that of Cuba. Cuba's window on capitalism, which is similar to that of China, if it is maintained to the year 2050, will reestablish the quality of life at a significant level above the D.R. If Cuba abandons socialism and embarks upon the road being travelled by the D.R., Cuba will still have a higher quality of life than the D.R. Cuba has much pent up potential for moving the country forward. Lifting of the Untied States Embargo will make life easier for the Cubans.

Fertility in Cuba will remain low in the first half of the 21st century, while that of the D.R. will approach that of Cuba. Both population will age, but Cuba will have a higher percentage above age 65 than the D.R. Cuba’s mortality will increase ahead of the D.R. since the population is aging faster. Both countries are well into the third stage of the demographic transition. Policies have driven down fertility. Infant mortality has made tremendous decline because of maternal and child care, better sanitation, better health and reduction of malnutrition.

Giving the opportunity for migration to developed societies, both Cuba and the D.R. would have tremendous net migration losses. The opportunity for migrating to Canada and the U.S.A. have become quite restricted. The fall of the socialist government in Cuba will not see mass migration of former Cubans resident abroad returning home.

Internal migration is a major demographic force. It rearranges the spatial distribution of the population. It invariably leads to higher levels of urbanization. Cuba and D.R. are urbanized societies. The capital cities are primate cities. They both have two cities below the capital that are a very important part of the urban hierarchy. Provincial capital cities are becoming large urban areas. Some cities have become growth centres around some resources. The urbanization of these two republics and their large urban centres are major problems involving social pathology, economic problems and environmental problems. Urbanization has many adverse effects for a sustainable development. Poverty and a poor quality of life are major problems for these societies. These problems will be up front as they move into the next millennium.

Cuba and the Dominican Republic should pay special attention to the Programme of Action coming out of the International Conference on Population and Development, Cairo, 1994 (UN, 1995), and Social Equity and Changing Patterns: An Integrated Approach (ECLAC, 1992); since they have signed both documents. Following these recommendations, as they enter the new millennium, will lead to a sustainable development and an improved quality of life for the two societies.

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