

Alfonso Gonzalez
The University of Calgary

Latin America's Population and Development in the 1970s

Latin America, like other underdeveloped regions, has been endeavoring to improve its level of living in the post World War II period. The major approach has been by encouraging rapid economic development, but declining mortality has increased the rate of population growth and augmented pressure on resources.

Latin America's economic growth during the 1960s was comparable to that prevailing in other underdeveloped regions, but during the 1970s the improvement was not comparable to that of the Middle East or the Orient; nevertheless, Latin America's population growth remains about the highest on earth (based on data from World Bank Atlas, various years).

In Latin America, significant efforts in the field of family planning began only in the late 1960s. During the 1970s the rate of economic expansion in the underdeveloped world, except for sub-Saharan Africa, probably increased over that prevailing during the 1960s. This is in contrast to the advanced regions where population growth is only perhaps two-fifths that of the underdeveloped regions.

Until the latter half of the 1970s, Latin America had the highest per capita gross national product (GNP) in the underdeveloped world, but since 1976 it has been exceeded by the Middle East, due essentially to the improved status of nations in the Organization of Petroleum Exporting Countries. Nevertheless, the great masses of Latin American people still have a better level of living than those of most other underdeveloped regions. However, the economic expansion within Latin America is quite uneven. Brazil has been increasing its share notably, and distribution of economic benefits within individual countries has generally not been improving either.

Population Growth

The population of Latin America in 1970 was 283 million and at present it already exceeds 360 million (*Demographic Yearbook 1977*, Table 1; *World Population Data Sheet 1979*; *World Population Estimates*, 1979). This represents an annual average increase of 8 million and an overall growth of more than one-quarter (27.6

percent) during the 1970s. The annual rate of growth remained at about 2.7 to 2.8 percent, comparable to the 1960s and most of the post-World War II period.

Latin America has been the fastest growing world region in population for half a century, but since the late 1960s it has been equaled or slightly exceeded by the Middle East. Latin America has the lowest mortality and fertility of the underdeveloped world, except for East Asia.

There is considerable variation among the individual countries of the region in the rate of population growth, from the rapid growth (exceeding 3 percent annually) of Mexico, northern Central America, Venezuela, Ecuador, and Paraguay to the very slow growth (1.3 percent or less) of Trinidad-Tobago, Argentina, and Uruguay. The general slow decline of mortality continues although the death rate remains relatively high in northern Central America, Hispaniola, and in the central Andean countries. Fertility is also declining, especially in the Antilles, Chile, Costa Rica, Guyana, Colombia, and Panama. However, during the 1970s the rate of population growth increased significantly in Honduras, Nicaragua, Haiti, Bolivia, and Paraguay, whereas a significant decrease occurred in El Salvador, Costa Rica, Cuba, Puerto Rico, Trinidad-Tobago, Colombia, Chile and Argentina.

Only slightly more than one-third (35.6 percent in 1978) of the total population is in agriculture, which is by far the lowest proportion in the underdeveloped world. The rate of growth of the agricultural population is declining and remains the lowest among underdeveloped regions. Although in Latin America the annual rate of population growth in this sector has been less than 1 percent during the 1970s, the agricultural population increased by more than one-fifth of a million families every year, resulting in additional pressure on land and rural resources. This was somewhat less, both relatively and absolutely, than the rate of growth during the 1960s. An absolute decrease of the agricultural population occurred only in the Antilles (except Hispaniola), Guyana, Argentina, Uruguay, Chile, and more recently, beginning in the late 1960s, Venezuela, and in the 1970s, Colombia.

Latin America is, by far, the most highly urbanized underdeveloped region of the world, although in the post-World War II period it has generally exhibited the slowest rate of urban growth. Only in the 1960s and only in the Orient has urban growth been slower. During the 1960s probably 2 to 3 million migrants moved annually into the urban centers of Latin America and during the 1970s this perhaps increased to more than 4 million every year. Although this migration may provide some relief to the rural environment it certainly exacerbates already

serious urban problems.

During the 1970s Brazil and Panama attained 50 percent urban status, so that no major country of Latin America remains predominantly rural, but only Uruguay and Panama of the smaller countries are more than 50 percent urban. The stage of settlement evolution in which the rural population declines absolutely has been attained in Argentina, Uruguay, Chile, and Puerto Rico and, probably in the late 1970s, Cuba entered this stage. Latin America has the slowest rate of rural increase among underdeveloped regions and will probably not undergo an absolute decline of the rural population until the next century.

Population and Economic Growth

Latin America had a generally slower rate of economic growth in the latter part of the 1970s than in the earlier years of the decade, as was generally true world-wide. However, within Latin America, Venezuela (probably due to the growing importance of petroleum) and several small countries did experience greater growth in the late 1970s than earlier. During the early 1970s economic growth in Latin America significantly exceeded the rate prevailing in the 1960s, in spite of the fact that 1975-78 economic growth was significantly slower than in the 1960s. The effects of the energy crisis, inflation, and the world recession also obviously had an impact on Latin American development in the latter part of the 1970s. Despite this, approximately half of the nations of the region experienced a faster improvement in the growth of GNP per capita in the 1970s than in the 1960s, including Venezuela, Colombia, Brazil and various smaller countries (based on data from World Bank Atlas, 1978, 1979).

The relative change in GNP per capita among the Latin American countries varies considerably, ranging from those that exceeded 6 percent annually in the 1970-77 period (Brazil, Suriname, and Ecuador -- all of which had population growth rates of approximately 3 percent annually) to those that the GNP did not even keep pace with population growth (Jamaica, Chile, Cuba, and Panama -- with only the latter having a high population growth).

Only slightly less than one-third of Latin America's population is classified as economically active. Only the Near East is comparable among the underdeveloped regions, with the others being higher. This low proportion of economically active people is due in large part to the very low participation rates by females in the labor force in Latin America. There is a large dependent

population in Latin America, yet there are serious problems of expanding economies fast enough to provide the many additional jobs that a burgeoning population demands. In the 1960s, 1.7 million were added annually to the labor force, and that increased to 2.7 million annually in the period 1970-78. The projections are for a 3.2 million increase annually in 1980-85 (based on data from *Yearbook of Labor Statistics*, 1978, 1977; *FAO Production Yearbook*, 1978; *World Population Estimates*, 1979). Overall in the last quarter of this century Latin America's labor force will double, exceeding the growth rate of any world region, so that the pressure for employment opportunities and the demand for economic expansion will be formidable. The persistent problems pertaining to the labor force stem, at least in part, from continued rapid population growth, rural-urban migration, with increasing proportions entering the non-agricultural sectors, and increasing participation in the economy.

Population and Agriculture

In the period 1970-1978 Latin America increased its agricultural production by approximately one-quarter. This rate is slightly faster than that which prevailed in Latin America during the 1960s but slower than the 1950s. Latin America is unique in that it was able to maintain an absolute increase in production every year in the 1970s. Nevertheless, in one out of three years agricultural production failed to keep pace with population growth. Despite an impressive increase in the overall volume of production, per capita food production increased by a mere 4 percent, among the best of the underdeveloped regions, but exceeded by every advanced region. Variations in agricultural production and per capita output are also considerable among the individual Latin American countries. On a per capita basis improvement is most notable in the major countries of Brazil and Argentina and poorest (with declining per capita output) in the major countries of Peru, Cuba, and Mexico. There seems to be no simple correlation between changes in the food supply and the rate of population growth. Countries with both slow and rapid population growth occur among those with the best improvement and the poorest performances.

In Latin America cropland (physiological) densities, or total population per unit of cropland, as in all underdeveloped regions, has been increasing overall. However, in seven countries (Cuba, Haiti, Trinidad/Tobago, Ecuador, Bolivia, Chile, and Argentina) during the 1970s the cropland density decreased; that is, the cropland expanded faster than the total population. This was due to 1) the rapid expansion of cropland, except in Trinidad/Tobago and 2) relatively slow population growth,

except in Ecuador. However, the agricultural density, or agricultural population per unit of cropland, in Latin America actually decreased, the only underdeveloped region where this occurred. Among the underdeveloped regions, Latin America has the slowest increasing agricultural population but the fastest expanding area of cropland. Agricultural densities are increasing in all of mainland Middle America, the Dominican Republic, and Paraguay. In El Salvador and on Hispaniola agricultural densities are comparable to the Orient more than 300 persons per km² while double the Latin American average, more than 150 persons per km², occurs in Honduras, Peru, Guatemala, Suriname, Jamaica, and Costa Rica.

Latin America is extending its area in pastures faster than any region, and the number of livestock are the fastest increasing on earth (*FAO Production Yearbook*, 1978). However, livestock are increasing in Latin America more than four times faster than the expansion of cropland. The rapid expansion of both cropland and pastures is accompanied by the rapid destruction of forests in Latin America. In the 1970s, as in the 1960s, an average of two million hectares were deforested annually -- by far the largest area of any world region. In the past decade approximately one-quarter million square kilometers were cleared, comparable to two large eastern states of the United States or half of a prairie province of Canada.

Population and Manufacturing

Industrial development in Latin America was more than twice as rapid in the early 1970s as in 1975-1977 (based on data from *Economic and Social Progress in Latin America*, 1978). Latin American industrial development has moved from a rate faster than the remainder of the underdeveloped world to a rate that is slower. Generally, in Latin America in the past two decades manufacturing has been growing from 50 percent to 300 percent faster than agriculture.

Manufacturing exceeds agriculture in employment only in Argentina, Puerto Rico, Trinidad/Tobago, and Uruguay. The employment sector growth among countries is variable, but apparently the growth of manufacturing is not adequate to absorb the rapidly increasing population and rapid growth of services and commerce that is also occurring.

The value of manufacturing in 1978 was approximately two and one-half times greater than that of agriculture. Manufacturing has exceeded agriculture in value

since probably the 1950s, and by 1970 it was approximately twice as great. In the 1970-78 period, manufacturing increased from 25.8 percent to 26.6 percent of Latin America's gross domestic product (GDP) while agriculture declined from 13.3 percent to 10.8 percent. Since the decline of agriculture is faster than the expansion of manufacturing, the differential is being absorbed by other sectors of the economy. In all the major countries of Latin America except Colombia, manufacturing exceeds the value of agriculture and in the 1970s Costa Rica and the Dominican Republic joined three smaller countries, Uruguay, Jamaica, and Trinidad/Tobago, where manufacturing already exceeded agriculture in overall value.

Growth of manufacturing among the countries of Latin America varies considerably, as it does for agriculture and population. Generally the development of manufacturing was faster than agriculture in the early 1970s than in the previous decade, but growth in 1975-1978 was much slower than the 1960s overall. The most rapid growth of manufacturing in the 1970s occurred in Costa Rica, Ecuador, and Brazil while in the late 1970s there was actually a decline in the value of manufacturing in Panama, Argentina, and Chile.

The Geographic Literature

This review of the geographic literature pertaining to population and socio-economic development in Latin America is confined to that published in English during the 1970s. There are, of course, many publications that refer to, or briefly discuss, population and/or development in the region but this review relates to publications with a significant emphasis on the theme of population and development.

Although the geographic literature on the topic of population and development in Latin America exceeds that on any other world region, there are a greater number of such publications scattered in the periodicals devoted to Latin American studies, demography, development, and the publications of the Economic Commission for Latin America, especially the *CEPAL Review*, formerly entitled *Economic Bulletin for Latin America*. Furthermore, a significant body of literature also exists in Spanish, most notably in the periodical *Demografía y Economía*, published in Mexico.

In the period 1970-78 (with 1978 incomplete) there were 147 dissertations in geography devoted to Latin America published in Anglo-America (*The Professional*

Geographer, various issues 1970-1979). Of these, 17 were devoted to themes of population, 10 to migration, 4 to settlement and colonization, 2 relating to the environment/habitat, and 1 to family planning. Unfortunately, however, not one related to the problem of population and development.

During the 1970s there were three books by geographers of a general geographic nature and frequently used as course textbooks pertaining to Latin America that provide a somewhat greater emphasis generally on population and development (Odell and Preston, 1973; Gilbert, 1974; Cole, 1975).

The geographic periodical literature and chapters in books devoted to population and development in Latin America can be segregated into six themes:

1) General - Williams published a methodological article dealing with overpopulation (Williams, 1971) while Udell studied economic development from the perspective of the dual spatial economy, the developed "core" with dense population and the larger underdeveloped "periphery" that was sparsely settled (Odell, 1974). Gonzalez approached population growth and socio-economic development by studying economic sectors and social conditions (Gonzalez, 1971a). Clarke studied the population problems in the Caribbean, notably population pressure, ecological conditions, employment, and urban growth (Clarke, 1971).

2) Resources - Gonzalez studied the problem of agriculture and food supply (Gonzalez, 1971b), while Antonini with others studied population and energy in the Dominican Republic (Antonini, et al., 1975). In *Geography and a Crowding World*, edited by Zelinsky, et al. (1970), are four chapters dealing with population and resources in different parts of Latin America. Zelinsky studied Central America and the West Indies (Zelinsky, 1970), Sandner covered Costa Rica (Sandner, 1970), Webb concentrated on Northeast Brazil (Webb, 1970), while Bonasewicz studied the state of São Paulo (Bonasewicz, 1970).

3) Migration - Migration-and development in Latin America was studied by Rengert and Rengert, whose research emphasized migration and agricultural development in a part of Mexico.

4) Rural Environment/Settlement - Stouse and Holtzman wrote a method-oriented article pertaining to rural population potential and regional planning (Stouse and Holtzman, 1971) and two articles were concerned with the concept of

the "hollow frontier" in Sao Paulo (Taylor, 1973; Casetti and Gauthier, 1977). Bromley studied agricultural colonization and petroleum in the upper Amazon, concentrating on Ecuador (Bromley, 1972) while Schuurman has written of developmental problems with agricultural colonization in the Amazon basin east of the Andes (Schuurman, 1978).

5) Urbanization- McNulty, an Africanist writing in a Conference of Latin Americanist Geographers publication, provided a method-oriented paper relating to urbanization and economic development (McNulty, 1971). Frankman, an economist writing in a geographical journal, also related urbanization to economic development with a general review of Latin America (Frankman, 1971). Clarke approached the problem of urbanization from the ecological viewpoint in a case study of Kingston, Jamaica (Clarke, 1975).

From the preceding review, it is apparent that one of the major problems confronting Latin America and other underdeveloped regions has received very limited attention by geographers. Furthermore, nearly a dozen studies were published in 1970-71 while only four appeared in the latter half of the decade, so there is not an increasing awareness of this lacuna by geographers. The neglect of this major problem can be readily seen from a number of recent special studies. The problem of desertification is clearly associated with population growth and it received great attention in 1977 when the world conference was held in Nairobi. The journal *Economic Geography* devoted its entire issue of October 1977 to this problem and entitled the issue the "Human Face of Desertification". Nevertheless, there was not a single article of the 19 contained in the issue that was devoted specifically to the relationship of population to resources. Another journal, *Geographical Magazine*, published five series of two articles each on desertification from July to December 1977 and, again, there is no article on population and, in contrast to the Economic Geography issue just mentioned, there is also no article devoted to Latin America. The November 1978 issue of the *Journal of Geography* is devoted to population geography, yet there is not a single article on Latin America. As a final example of the neglect of this important theme, the Conference of Latin Americanist Geographers published seven volumes, four of which have either "population" or "development" in the title, but only two articles (Stouse and Holtzman, 1973, and Clarke, 1975) discussed above, pertain specifically to the problem of population and development in the region, although there are another three articles (Williams, 1971; McNulty, 1971; and Rengert and Rengert, 1976) in the other volumes that relate to the theme.

The possibilities for research under the general rubric of population and development in Latin America are numerous and I will mention some that would be of interest. Studies certainly are needed that demonstrate the relationship of population growth to the rate of economic growth and socio-economic improvement. Also, the question of population policies, programs, and effects on the degree of economic development would be highly informative. In conclusion, it would be illuminating to demonstrate any relationship between population growth and land use changes, ecological deterioration and pressure and resultant changes in policies, use, and application of differing resources in individual countries or the region.

References Cited

- Antonini, G.A., K.C. Ewel, and H.M. Tupper. *Population and Energy: A System Analysis of Resource Utilization in the Dominican Republic*. (Gainesville: University of Florida Press, 1975).
- Bonasewicz, A. "Population Pressure in the State of São Paulo, Brazil," in W. Zelinsky, L.A. Kosinski, and R.M. Prothero (eds.) *Geography and a Crowding World: Symposium on Population Pressures upon Physical and Social Resources in the Developing Lands*. (Oxford: Oxford University Press, 1970), 556-573.
- Bromley, R.J. "Agricultural Colonization in the Upper Amazon Basin: The Impact of Oil Discoveries," *Tijdschrift voor Economische en Sociale Geographie*, Vol. 63 (1972), 278-294.
- Casetti, E. and H.L. Gauthier. "Formalization and Test of the 'Hollow Frontier' Hypothesis," *Economic Geography*, Vol. 53 (1977), 70-78.
- Clarke, C.G. "Population Problems in the Caribbean," *Revista Geográfica (Mexico)*, Vol. 75 (1971), 31-49.
- Clarke, C.G. "Ecological Aspects of Population Growth in Kingston, Jamaica, in R.P. Momsen, Jr. (ed.) *Geographical Analysis for Development in Latin America and the Caribbean; Proceedings of the Conference of Latin Americanist Geographers*, Vol. 4 (East Lansing: CLAG Publications, 1975), 42-55.
- Cole, J.P. *Latin America: Economic and Social Geography*. 2nd ed. (New York: Rowman and Littlefield, 1975).

- Frankman, M.J. "Urbanization and Development in Latin America," *Cahiers de Géographie de Québec*, Vol. 35 (1971), 344-350.
- Gilbert, A. *Latin American Development: A Geographical Perspective*. (Harmondsworth, England: Penguin Books, 1974).
- Gonzalez, A. "Population Growth and Socio-Economic Development: The Latin American Experience," *Journal of Geography*, Vol. 70 (1971), 36-46.
- Gonzalez, A. "Population, Agriculture and Food Supply in Latin America," *Cahiers de Géographie de Québec*, Vol. 35 (1971b), 333-343.
- McNulty, M.L. "Urbanization and Economic Development; Research Directions and Needs," in B. Lentnek, R.L. Carmin, and T.L. Martinson (eds.) *Geographic Research on Latin America: Benchmark 1970; Proceedings of the Conference of Latin Americanist Geographers Vol. 1*. (Muncie: Ball State University, 1971), 343-349.
- Odell, P.R. "Geography and Economic Development with Special Reference to Latin America," *Geography*, Vol. 59, Part 3 (1974), 208-222.
- Odell, P.R. and D.A. Preston. *Economies and Societies in Latin America: Geographical Interpretations*. (New York: Wiley, 1973).
- Rengert, A.C. and G.F. Rengert. "Does Out-Migration Hinder Agricultural Development: View from Rural Mexico," *Latin America: Search for Geographic Explanations; Proceedings of the Conference of Latin Americanist Geographers Vol. 5*. (East Lansing: CLAG Publications, 1976), 133-140.
- Sandner, G. "Population Pressure upon Resources in Costa Rica," in W. Zelinsky, L.A. Kosinski and R.M. Prothero, (eds.) *Geography and a Crowding World; Symposium on Population Pressures upon Physical and Social Resources in the Developing Lands*. (Oxford: Oxford University Press, 1970), 535-555.
- Schuurman, F.J. "From Resource Frontier to Periphery: Agricultural Colonization East of the Andes," *Tijdschrift voor Economische en Sociale Geographie*, Vol. 69 (1978), 95-104.
- Stouse Jr., P.A.D, and B. Holtzman. "Rural Population Potential and Regional Planning," in A.D. Hill (ed.) *Latin American Development Issues; Proceedings of the Conference of Latin Americanist Geographers*. Vol. 3 (East Lansing: CLAG

Publications, 1973), 160-164.

Taylor, H.W. "São Paulo's Hollow Frontier," *Revista Geográfica (Mexico)*, Vol. 79 (1973), 149-155.

United Nations. *Demographic Yearbook 1977*. (New York: Statistical Office of the United Nations, 1977).

United Nations. *Economic and Social Progress in Latin America, 1978; 1977; 1974*. (Washington: Inter-American Development Bank, 1978; 1977; 1974).

United Nations. *FAO Production Yearbook, 1978*. (Rome: Food and Agriculture Organization of the United Nations, 1978).

Webb, K.E. "Landscape Evolution: A Tool for Analyzing Population-Resource Relationships: Northeast Brazil as a Test Area," in W. Zelinsky, L.A. Kosinski, and R.M. Prothero (eds.) *Geography and a Crowding World*. (Oxford: Oxford University Press, 1970), 218-234.

Williams, L.S. "The Overpopulation Concept and the Latin Americanist Geographer," in B. Lentnek, R.L. Carmin, and T.L. Martinson (eds.) *Geographic Research on Latin America, Benchmark, 1970; Proceedings of the Conference of Latin Americanist Geographers Vol. 1*. (Muncie: Ball State University, 1971), 119-123.

World Bank Atlas, 1979; 1978; 1972. (Washington: World Bank, 1979, 1978, 1972).

World Population Data Sheet, 1979. (Washington: Population Reference Bureau, 1979).

World Population Estimates, 1979. (Washington: Environmental Fund, 1979).

Yearbook of Labour Statistics, 1978; 1977. (Geneva: International Labour Office, 1978; 1977).

Zelinsky, W., L.A. Kosinski, and R.M. Prothero (eds.) *Geography and a Crowding World; Symposium on Population Pressures upon Physical and Social Resources in the Developing Lands*. (Oxford: Oxford University Press, 1970).