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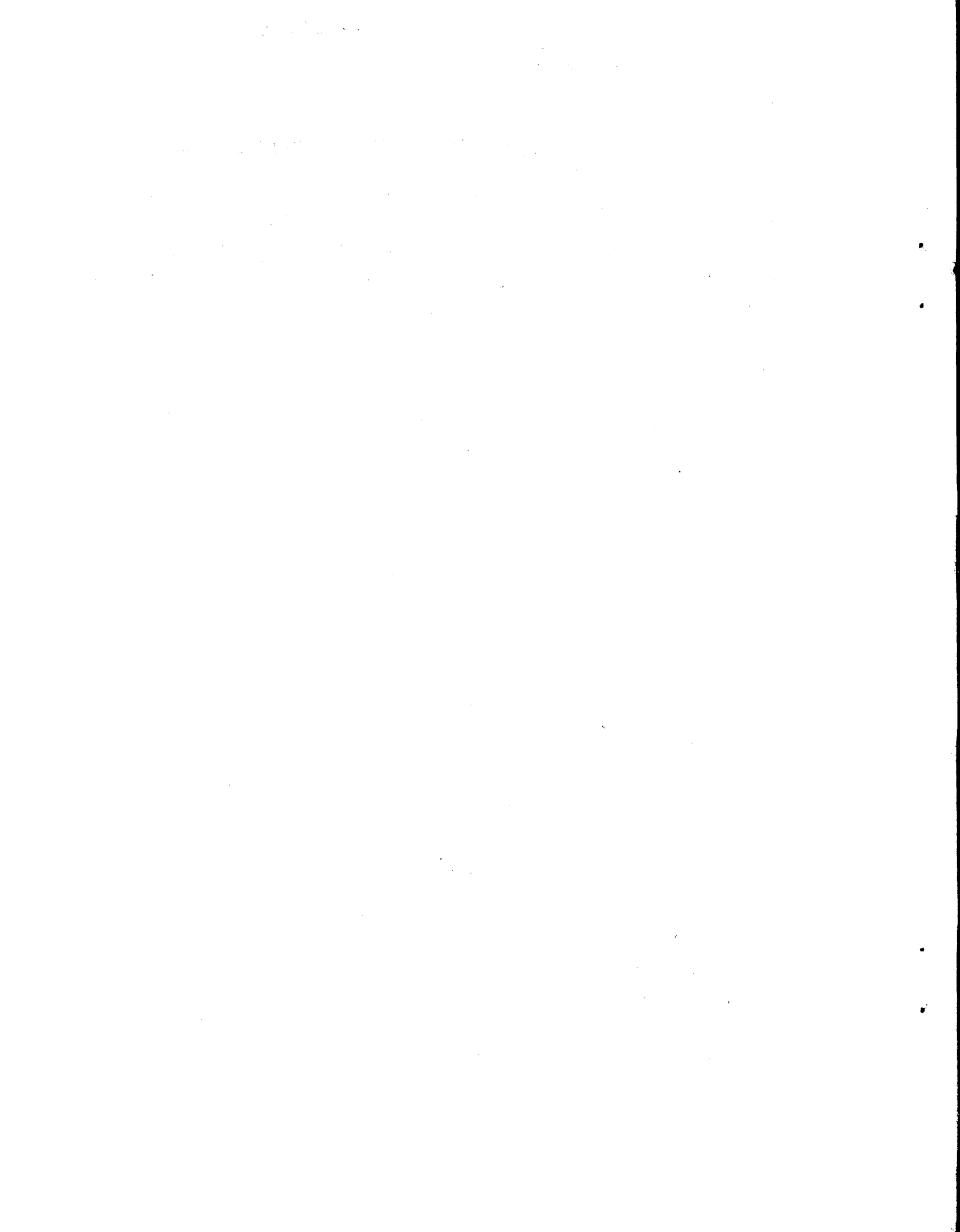
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to Review the Draft Action Plan for the
Wider Caribbean Region

Caracas, Venezuela, 28 January - 1 February 1980

HUMAN SETTLEMENTS IN THE WIDER CARIBBEAN



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INTRODUCTION

This report has been completed in compliance with the request made by the Caribbean Environmental Management project to this office for the preparation of an overview of Human Settlements & Habitat in those countries defined as forming the wider Caribbean Area. The two aspects of Human Settlements covered in the main body of the report - the evolution of the spatial distribution of the population and the situation of housing and related services - do not pretend to provide a complete survey of human settlements in the region. However, in view of the time and information availability, these were selected as representing key elements for an adequate comprehension of the situation and for subsequent policy making exercises.

The report is accompanied by an Appendix containing a list of national and regional entities which have been identified to date as connected with human settlements policy, management, finance, associated research and training.

I. SPATIAL DISTRIBUTION OF THE POPULATION, 1950-1970

1. Introduction

This chapter basically concerns the various aspects of the spatial distribution of the population living in the Caribbean Basin, Latin American sector.

It was originally requested that the chapter should include other demographic aspects. Regrettably, it had to be limited to those mentioned above because of a shortage of time and auxiliary staff to gather the required information. This information had to be collected from various sources which were not always in agreement, and on occasions did not cover all the countries. Nevertheless success was achieved in collecting, organizing and analyzing information for nine different tables which are considered important for proper understanding of the problem being studied. These tables cover:

- a) General information on the region;
- b) Information by groups of countries and by zones;
 - i) Central America;
 - ii) North and north-east South America;
 - iii) Caribbean islands;
- c) Information on areas which drain towards the Caribbean, for those countries which could be subdivided in this way.

The chapter is also accompanied by a series of maps covering:

- a) administrative divisions;
- b) general density levels;
- c) rural density levels;^{1/}
- d) towns, and
- e) levels of urbanization. In each case

^{1/} It should be noted that the rural/urban classification adopted in this chapter is based on the statistical criterion used by the United Nations. In other words, settlements of more than 20 000 inhabitants are considered urban. Obviously, this classification has limitations in specific contexts; nevertheless, in dealing with such a large and heterogeneous region it is necessary to use a single criterion in order to make the data more manageable; besides, for most of the countries no studies have been carried out which would permit a distinction to be drawn for each case.

information is set out separately for Central America and the Caribbean, and for South America.

2. Some demographic aspects of the Caribbean Basin

a) Spatial distribution of the population

Population density per square kilometer of territory is the traditional measure of population distribution, and its continued use is the best proof of its usefulness. However, for proper interpretation various factors must be borne in mind.

a) Density is an average, and accordingly it is not representative in absolute terms for the whole territory. Figures for density levels are more representative, the smaller the area involved. Hence it is much more important to measure density levels in the administrative divisions of a country than the density level in the country as a whole.

b) The density figure obtained is much more representative when the population is distributed relatively evenly than when there is an alternation of large agglomerations of people, small localities and a dispersed population.

c) The density figure for a territory is not equivalent to the degree of dispersion of the population. Thus, for example, low density figures do not always necessarily indicate a dispersed population. They may also arise in an extensive area where there are only one or two substantial centres and a small rural population. Nevertheless, it has been pointed out that in general the conditions which permit more intensive social and cultural relations and more diversified economic activities arise only when density levels are above 25 inhabitants per square kilometer.^{2/} Empirical studies carried out in Latin America would seem to confirm that view.^{3/}

In order to minimize the distortion of reality which can be caused by measurement of general density, it is necessary also to determine rural

2/ The Population of South America, 1950-1980, Population Studies, No. 21 (United Nations publication, Sales No. 1955. XIII.4), p. 19.

3/ Niveles de desarrollo relativo de los distritos de la República de Panamá (Santiago, Chile, CEPAL, 1975), p. 13

density levels, which are generally calculated by relating the rural population to the total area, since the area occupied by towns is considered negligible as a proportion of the total area. For the same reason, rural density levels are considered more representative of the levels of settlement of an area, since they exclude the urban population, which is generally concentrated in a small part of the area.

The aim mentioned above is also served by study of the demographic importance of the towns of the area, and the corresponding levels of urbanization, (the urban population as a proportion of the total population) in the administrative divisions of the country.

For all the above reasons, the present study of spatial distribution in the Caribbean Basin has been conceived as: a) an analysis of general density levels in the countries and groups of countries covered by the study, and of general density levels in the major administrative divisions of those countries whose river systems drain towards the Caribbean; b) an analysis of rural density levels in the cases indicated; c) a quantitative study of urban development in the countries covered by the study; and d) an analysis of the situation of the major administrative divisions of these countries as far as migrations are concerned.

In all the cases the study covers the period 1950-1970 in order to observe changes over time.

It should be made clear that the analysis highlighted the considerable historical, cultural and physical heterogeneity characteristic of this area, in which the Caribbean is the common feature which defines it as a region.

In general, the information is grouped under three main headings: Caribbean Islands, Central America, and North and North-east South America. This is a basically geographical and physical classification. Strictly speaking, it is still very broad, since each of these sectors could easily be subdivided. Thus the group referred to as Caribbean Islands could be divided at least into two: the Greater Antilles and the Lesser Antilles. Central America could be subdivided into two parts: Mexico, on the one hand, and the other Central American countries on the other.

/Similarly

Similarly it would be simple to subdivide North and North-east South America into Venezuela and Colombia, on the one hand, and the three Guianas on the other. These subdivisions would have provided a much true picture of the situation, but the limited time available made such an approach impracticable.

b) General density levels

The considerations set out above make it clear how little illumination of the real status of population distribution is provided by the general density figures which can be cited either for the region as a whole, for the subgroups into which it has been divided or even for the countries which go to make it up. An exception to this statement is the group of island countries composing the Lesser Antilles, and even some of the smaller countries in the Greater Antilles. In general terms, it may be stated that these countries have practically reached a density level which it would be dangerous to exceed without seriously jeopardizing their capacity to support the populations living in them, not only in terms of natural resources (which have been supplemented from outside to a substantial extent for some time), but also as regards the scope for the population to live together in a physically favorable environment.

Nevertheless, it may be observed that in many of these small island countries the percentage increases in density levels have fallen over the past decade, and that in most of them these increases are now rather small, with a few cases where density levels have even fallen (see table 1.).^{4/} As reasons for this phenomenon, mention has been made both of the appreciable emigration to other countries (generally the United States or those countries which formerly had colonial links with the Caribbean) and of an active family planning campaign which has been under way in many of them for some years.

The prevailing situation in most of the Greater Antilles also provides grounds for concern. Cuba and the Dominican Republic were the only countries with density levels under 100 inhabitants per square kilometer in 1970. Even so, the percentage increases in their density levels in

4/ The tables and maps appear at the end of the document.

the past two decades are appreciable. Meanwhile, Puerto Rico has the highest density in the Greater Antilles (304.8 in 1970), while the figures for Jamaica and Haiti stand at over 150, with a percentage change which has risen over the past decade.

Curiously, in this whole area of islands, the lowest density levels belong to the countries with the least irregular topography: Cuba and the Dominican Republic. Although it is true that they are the largest countries in the area, which might contribute to this situation, it should also be borne in mind that this type of topography has historically permitted the development and specialization of agricultural soil uses which are extensive in nature and require little labour. In contrast, in most of the other islands the high density levels in settlements are often mountainous and even precipitous land has in many cases led to improper soil use with consequent erosion and degradation.

The mainland countries of the zone under consideration had more than 25 inhabitants per square kilometer in 1970. Almost all of them are countries with reserves of land for the spread of their populations.

The case of El Salvador, however, stands out from the rest of the group. Its position as a country of limited area and fairly rugged terrain brings it closer to the above description for the island countries, and the highest densities for the entire mainland area (169.5) are recorded in it. It is followed, some way behind, by Costa Rica, with the second highest density in this group (36.8). Nevertheless, both countries are concerned at the rises in density recorded in the period under consideration.

c) Density levels in areas which drain towards the Caribbean

As has already been mentioned, this part of the analysis relates to the major administrative divisions of the countries in the area being studied which drain towards the Caribbean the waters from all or most of their territories. For this reason the island countries, plus Belize, Colombia, Venezuela and the Guianas, are each considered as a whole, since their administrative divisions drain all or most of their waters towards the Caribbean.

Table 2 shows the data which provides a basis for this analysis; the accompanying density map offers a comparison between 1970 and 1950, for which the situation is shown in an insert.

/Historically

Historically, the population of this tropical area of Latin America has settled in the valleys, plateaux, basins and depressions of the highlands or in the less humid areas - in other words, in sectors where ecological conditions were most favorable to man. In Central America these areas are either very close to the Pacific area, or else are found in sectors of the interior which are remote from the coasts or separated from them by topographical barriers.

In this region the Caribbean side, on the other hand, possesses a generally very rainy and hot climate, and for that reason dense jungle-type vegetation has developed there, in marked contrast to the much less dense vegetation which has developed in the drier interior, and also the savannah-type vegetation of the Pacific area. In such circumstances, the Caribbean side, especially closest to the coasts, has always presented the greatest obstacles to settlement by man. Spanish colonization took root in it only to a limited extent, seeking refuge in the highest and driest areas. It was only much later that permanent settlements of any size were established; their principal original base was banana cultivation. Thus, right up to the present these regions have recorded low population densities and represent the principal reserve for expansion when demographic pressure from the interior and Pacific areas forces the population to seek new land for settlement.

In a study such as that being carried out in this sector, where the spatial limit of the territory under study is the watershed, it is natural to encounter sectors which do not exactly fit the above-mentioned climatic description, since the borders of the administrative divisions within each country do not follow the same criterion.

Table 2 indicates the administrative divisions used for each country. For the countries of Central America and Mexico as a group, the area draining towards the Caribbean represents almost half of the total area (45.0%), with the proportion varying from 21% in Panama to 91.9% in Honduras.

It may be seen that the population of this entire area has slightly decreased as a proportion of the total population, from 36.6% in 1950 to 34.9% in 1970. This drop in no way signifies a fall in the population. On the contrary, the growth rate led to a near-doubling of the population

/between

between 1950 and 1970. Population density levels have been rising continuously. However, the main towns and long-standing population centres in these countries are on the Pacific side, and are continuing to grow at high annual rates of increase, since they are the principal poles of attraction for the migrant population.

The density map illustrates how the highest increases in density for all the countries from Guatemala to Costa Rica have generally occurred on the Caribbean side. The same also applies to Mexico, with a few exceptions. This provides grounds for expecting a continued high level of settlement in coming years, which will substantially increase density levels in these sectors.

This evident fact calls for reflection by governments, planners and those responsible for maintaining a proper environment. The existence of dense vegetation has so far ensured that the protective layer in the region has been preserved fairly well, but the continuing process of settlement inescapably implies the destruction of this layer, and consequently of the soil, as a result of the primitive agricultural techniques used by the poor and ill-educated unorganized settlers as well as the abundant rain and, in many sectors, rugged terrain. If proper precautions are not taken, erosion will soon destroy the soils, cause the rivers and their mouths to silt up and, together with the rains, cause landslides and floods threatening serious danger for the population and irreparable damage to the environment.

The gravity of the present situation and future prospects is underlined by the five-year population projections prepared by the United Nations for the area to the year 2000 (see table 4), since although it appears that there will be a decline in population growth, the rates in most of these countries will still be decidedly high in the year 2000. In view of the levels of settlement on the Pacific side, it is logical to expect that the size of the population settling on the Caribbean side will continuously increase.

The South American density map shows how this continuous settlement process is occurring in Colombia and Venezuela largely in the direction of the plains of the interior, while on the Caribbean coasts the substantial

/increase

increase in density levels is occurring in very specific areas where the principal influence must be the growth of the towns. Reference will be made to this point later. However, in view of the extremely low density levels in these plain areas, and the slightly lower growth rates forecast for these countries, the problem to be faced seems somewhat less serious.

d) The growth of towns

In order to standardize the information from the different countries, a decision was taken to regard as urban the population settled in localities of 20 000 inhabitants or more, in accordance with the definition used by the United Nations.

According to information gathered from various sources (see table 5) it is clear that the region under consideration experienced a strong drive towards a concentration of the population in localities of 20 000 inhabitants or more during the period under study, particularly in the decade 1950-1960. Thus the annual growth rates for the urban population were much greater than the growth rate for the total population, with a very few exceptions (Bahamas in the decade 1960-1970, Belize in the same decade and Suriname throughout the period under consideration). In this way the levels of urbanization in the region as a whole, and in the three groups of countries making it up, increased appreciably. Nevertheless, it is clear that in 1970 the region's rural population was still preponderant.

The circumstances of the urban population in the three groups of countries varied greatly. The situation was rather similar in Central America and the Caribbean Islands (in both cases about a third of the total population), while in North and North-east South America the urban population totalled close to 50%. In this latter case a counter-influence was provided by the low urbanization levels in Guiana and Suriname. The lowest urban growth rates and lowest urbanization levels applied to the island countries of the Caribbean, more than 45% of which had no centres of 20 000 inhabitants or over in 1970. At the other extreme, the highest values applied to the North and North-east South America region, where in the least urbanized countries, Guiana and Suriname, centres of that size emerged for the first time in the decade 1960-1970.

/In Central

In Central America only the Canal Zone had no centres of 20 000 people. This situation is accounted for by the military function this zone retains, where the location of the population is subject to military requirements and where the population centres have no life of their own.

The urban population of the areas which drain towards the Caribbean made up 25.7% of the total population of the countries in 1970.

In fact for some of these countries urban development in these Caribbean sectors is of fairly recent date. Only in the case of Mexico have all the States in this area had towns of 20 000 inhabitants or over since 1950, most of them with annual average growth rates of over 400. In Guatemala, only one of the provinces in question falls into this category, doing so for the first time in the 1960 population census. Nevertheless, its annual average growth rate is very low. Urban centres also appeared in Costa Rica and Nicaragua in 1960, with the difference that the number of towns was greater. In Panama one of the two provinces which belong to this group still had no centre of this type in 1970, while the other still had only one, with a very low annual growth rate. Honduras showed more marked urban characteristics in this area than the last four countries mentioned (see table 7.). This was reflected in the number of towns, the fact that the two largest have existed since 1950 and the vigorous annual growth rate.

Consequently, all the indications are that the countries in this area in which urban development occurs predominantly in the Caribbean zone are Mexico, Honduras and Costa Rica, and that this aspect is practically marginal in the remaining countries of the zone.

e) Composition of the urban structure since 1950

It is obvious that the period 1950-1970 was one of great urban expansion in the Caribbean region. During this period the number of urban localities increased more than two and a half times, while the population living in them almost tripled (see table 7.).

Analysing these increases for all the areas which go to make up the basin, it can be seen that the highest percentage rises both in the
/number

number of localities and in population occurred in towns of between 500 000 and 999 999 inhabitants, which before 1950 were the fewest in number. However, viewing the increases in absolute terms it may be noted that the towns which proliferated most were the smallest - those with a population between 20 000 and 49 999 inhabitants - but that the greatest population increases were recorded in towns with a population of between 100 000 and 499 999 inhabitants. This provides grounds for thinking that, if this trend continues, towns of between 500 000 and 999 999 inhabitants will register a very substantial increase in the censuses to be held around 1980.

This behaviour is not, of course, uniform throughout the different areas of the region under consideration, as can be seen below.

CARIBBEAN BASIN: GREATEST INCREASES IN NUMBER OF LOCALITIES
AND IN POPULATION, 1950-1970

	Greatest percentage increase by size of locality		Greatest absolute increase by size of locality	
	Number of localities	Population	Number of localities	Population
Central America	20 000- 49 999	100 000-499 999	20 000- 49 999	100 000-499 999
Caribbean Islands	20 000- 49 999	100 000-499 999	20 000- 49 999	100 000-499 999
North and North- east South America	100 000-499 999	500 000-999 999	100 000-499 999	1 000 000 and over

For Central America and the Caribbean Islands this urban growth occurred in a very similar manner in terms of the form of development of the network of human settlements, though this does not of course imply similarity in the size of the network in terms of the number of components. In these two areas the largest increases in the number of localities and in the population, both in percentage and in absolute terms, apply in the first case to those with a population between 20 000 and 49 999, and in the second case to towns with between 100 and 499 999 inhabitants.

/This reflects

This reflects a rapid concentration of the rural population in the larger localities in this area, which because of their growth are ceasing to be rural and becoming urban. It also appears to reflect migration from small towns (less than 100 000 inhabitants) to medium-sized towns.

The urban networks in the countries in North and North-east South America developed in a different manner. There the towns which recorded the largest increases in numbers in percentage and absolute terms were those with populations of between 100 000 and 499 999 inhabitants. On the other hand, the greatest percentage increases in population occurred in towns of between 500 000 and 999 999 inhabitants, while the highest absolute growth rates occurred in those of over one million inhabitants. These marked differences from events in Central America and the Caribbean Islands must be related to a more long-standing urbanization process. It is likely that the difference would have been even greater if the Guianas had not been included in this group of countries.

Because of the way in which the settlement of the area of Central America referred to above occurred historically, it is obvious that most of its towns are not on the Caribbean side.

In Colombia, because of the nature of its drainage network, practically all of the towns are on the Caribbean side. The same happens in Venezuela, where in addition, because of the development of the petroleum industry, coastal towns have proliferated in recent decades.

The maps of towns accompanying this study will be useful in identifying the urban centres and the size categories into which they fall.

f) Critical urban growth rates

Empirical studies carried out for Latin American countries^{5/} would appear to indicate that, despite its relative economic vigour,

^{5/} Ligia Herrera, "Tasa de crecimiento y deterioro del medio urbano en México. Un intento exploratorio de las relaciones existentes". Economía y demografía, Vol. XI, No. 3. El Colegio de México, 1977.

the Latin American town is incapable of absorbing in productive employment the members of the growing work force which inhabit it, either because they were born there or because they have arrived as migrants from other areas, and is equally incapable of furnishing this population with a proper range of urban public services. Both large and small towns suffer from this deficiency which has serious consequences.

Some other aspects of the problem are even more acute for small towns with high population growth rates, since it is both traditional and characteristic of the existing norms and patterns of development that there should be an excessive concentration of investment, services and opportunities for work and cultural development in the larger towns at the expense of the rest.

The analysis carried out in the study referred to led to the establishment of thresholds for population growth rates beyond which the various public services in a town become unsatisfactory. In general terms one may say that growth rates of between 5% and 6% per year fall in a critical range which would seem to indicate the desirability of reducing the rate at which the town is growing. Similarly, population growth rates of 6% a year could be considered as a threshold beyond which lies in appreciable shortfall in services. This shortfall would continue to worsen up to a point where, when the growth rate exceeds 11.9%, the situation may be regarded as very bad. Growth rates at this level have come to be referred to as "explosive growth".

A small table appears below which indicates the towns in the region under consideration in which growth may be regarded as "critical", "destructive" and "explosive" in the countries for which information was available: The figures apply only to the area draining towards the Caribbean in the Central American countries, and to the whole area in the remaining countries. The results were as follows:

CARIBBEAN BASIN: TYPES OF GROWTH RATE

	Total number of towns	Types of growth rate		
		Critical 5.0 - 5.9	Destructive 6.0 - 11.9	Explosive 12.0 and over
Totals	228	30	40	3
Percentage	-	13.2	17.5	1.3
Nicaragua	1	1	-	-
Honduras	3	1	3	-
Mexico	24	7	12	1
Guyana	1	-	1	-
Venezuela	64	8	6	2
Colombia	70	5	8	-
Cuba	31	2	1	-
Jamaica	4	-	3	-
Haiti	4	1	-	-
Dominican Republic	14	5	6	-
Puerto Rico	1	1	-	-

The table indicates that almost a third of the towns in the region were in a situation where they required the greatest attention to enable them to provide proper shelter and services for their inhabitants. Inadequate provision of services is one of the surest paths towards the deterioration of the physical and human environment, principally that of those less well-off strata of the population which, as is well known, are most numerous.

g) The rural population

As has been indicated, the rural population provides the clearest indication of the way in which an area is settled. Hence the great importance of studying its density in order to obtain a clear idea of the spatial distribution of the population.

/As was

As was mentioned above, in 1970 the rural population of the Caribbean area was still in a majority. Despite an appreciable level of urban development in the region, the rural population was continuing to increase and density levels were continuing to rise, with particularly high levels in the Caribbean islands, because of the low level of urban development and the limited area of most of them. In contrast, the lowest levels prevailed in North and Northeast South America, while the Central American area occupied an intermediate position (see table 8). Nevertheless, in 1970 in the latter area, the rural population represented a very high proportion of the total population in El Salvador, Guatemala and Honduras (see table 8). El Salvador, because of its rural nature and small size, recorded rural density levels far above 100 inhabitants per square kilometre. The highest percentage increases in density in the period, however, were in Belize and Costa Rica, despite which Belize still has the lowest rural density levels in this sector.

In North and Northeast South America Suriname occupies a position somewhat similar to that of Belize. Like the latter, it remains a sparsely populated country in which small increases in population represent large percentage rises.

In this group of countries, the highest density levels apply to Colombia, although they are really rather low. This is a result of the distortion caused by the measurement of density over large areas using averages. More detailed reference will be made to this question below.

The Caribbean island countries record the highest rural density levels, just as they record the highest overall density levels. The reasons for this have already been indicated. Grenada, St. Vincent and Martinique have levels above 200 inhabitants per square kilometre, while Barbados reaches almost 350. Nevertheless, some countries in this sector (Puerto Rico, the Turks and Caicos Islands and Montserrat) record a drop in rural density levels; this does not happen for the other groups of countries studied, and indicates a new demographic trend in the area.

h) Rural density levels in the areas which drain towards the Caribbean

The rural density map and table 9 clearly show certain important facts by presenting rural density levels by primary administrative division, in other words smaller political subdivisions.

Firstly, it is clear that there is a tendency for the rural population to occupy increasingly the land on or near the Caribbean coasts. This tendency is shown in the map by the high percentage changes occurring almost continuously from the extreme north of the eastern coast of Yucatan down to Panama. This trend, which has been termed the "March to the Atlantic", becomes clearer if the increases in these administrative divisions on or near the coasts are compared in each case with those in the remainder of each of the countries concerned.

Secondly, it should be pointed out that the low density levels recorded for most of these countries mean that it is possible that this process of settlement will continue, leading to a rise in population and density levels, and the emergence of new urban centres.

The facts mentioned above inevitably imply an appreciable level of deforestation, increasingly widespread use of the soil for agricultural purposes, generally with inappropriate techniques, and consequently a profound and often harmful modification of the natural environment.

In North and North-east South America substantial increases in settlement in the direction of the coast are also frequent. Both in Colombia and in Venezuela, the Andean zones have traditionally recorded the highest density levels. However, it would seem that in these countries the "march" of the rural population is not occurring exclusively in the direction of the Atlantic; new settlers are also leaving the Andes for the interior plains of both countries, which contain extensive sparsely populated areas. Since these areas have a river system which drains towards the Caribbean, what happens within them is also of special interest for those dealing with the environment in the Wider Caribbean area.

II. THE BUILT ENVIRONMENT

1. Introduction

This section of the report provides an overview of housing and selected complementary services in the countries in the wider Caribbean area. A description of the current situation and projected needs based primarily on statistical information is followed by an analysis of some contributing factors. Types of governmental intervention and the activities of multilateral agencies are assessed. Short chapters are also included on precarious settlements, construction materials and systems currently in use and notable effects of settlement construction activity on natural resources.

2. No attempt is made to group countries according to sub-regional geographical or any other sort of criteria more directly related to the problem in hand due to time and information considerations. As a consequence, it is possible that important differences between countries are lost, especially in view of the historical, cultural and physical diversity of the countries involved. However, statistical tables do provide information by country and in the text reference is made to particular national situations where felt pertinent.

2. Housing needs and service coverage

3. As a general rule^{1/}, housing and related services are overall worst in countries with a large per cent of the population classified as rural; high demographic growth rates and high urban growth rates. As with all general rules, there are exceptions and comparatively deficitary situations can be found where one or another of these conditions is not met.

4. Independently of the tendency mentioned above, density of occupancy figures taken as an indication of housing needs (Table 1) and the

^{1/} Donelson et al, "Financiamiento para los Asentamientos Humanos", Actividades de las Agencias Multilaterales, Int. Inst. for Environment and Development, London, July 1970.

TABLE 1
 DENSITY OF OCCUPANCY: SOME COUNTRIES IN THE REGION*
 (Persons per room)

	Dwellings with:			National Average
	1 room	2 rooms	3 rooms	
Costa Rica (1973) ^{a/}	3.4	2.4	1.6	1.3
El Salvador (1971) ^{a/}	4.9	-	-	3.1
Nicaragua (1971) ^{a/}	4.1	2.2	-	2.0
Panama (1970) ^{a/}	4.4	2.4	-	2.2
Venezuela (1971) ^{a/}	3.9	2.6	-	2.3
Guyana (1977) ^{b/}	3.8	2.5	2.0	2.0
Barbados (1970) ^{c/}	-	-	-	1.1
Jamaica (1977) ^{d/}	-	-	-	1.9
	R			
	U			
USA (1970) ^{e/}	-	-	-	1.6
Italy (1971) ^{e/}	-	-	-	1.1

Sources:

- a/ Guillermo Rosenbluth, "La Vivienda en América Latina: Una Visión de la Pobreza Extrema" separata from ILPES, La Pobreza Crítica en América Latina. Ensayos sobre Diagnóstico, Explicación y Políticas. No date.
- b/ UNDP/Rep. of Guyana Urban and Regional Planning Project GUY/74/005, Draft working paper 77/3-5 Background Study "Housing", July 1977.
- c/ John W. Henderson "Housing Management Study of Barbados and Recommendations Arising therefrom". May 1978.
- d/ AID Office of Housing, Jamaica Shelter Sector Assessment, July 1977.
- e/ UN. Compendium of Housing Statistics 1972-1974, New York 1976.

Note: Density figures for many of other Caribbean islands, although older than those presented here, indicate lower densities than in the continental countries. This is possibly because considerable emigration in many cases serves as a buffer against overcrowding.

* Comparative figures for two developed countries are shown.

percentage of the population covered by basic services (Table 2) show serious deficits for all the countries of the region on which information was obtained.

5. The tables also indicate that existing housing and services are unevenly distributed both socially and ecologically, better conditions being found in urban areas and for more affluent social groups (number of rooms in dwelling being taken as an indication of socio-economic status).

6. It is clear that production has not kept up with requirements in any country. Between 1960-1970, no country has been identified as having officially produced sufficient dwellings so as to keep up with demographic growth. At the beginning of the decade, Venezuela was one country whose annual housing production most closely corresponded to demand (41 048 dwellings produced as against 54 842 required). Mexico, however, produced annually during the decade 67 800 units but required 227 689. The equivalent figures for Costa Rica and Guatemala were of 3 100/11 520 and 1 500/15 982 respectively. It is assumed that these figures refer largely to urban areas, since practically very few of the countries mentioned had rural housing programmes.^{2/}

7. Given the low productivity of dwelling construction during the 1960's the demand in the current decade is necessarily higher since the unsatisfied demand from previous years is added on to the new requirements. Table 3 gives estimates of per annum production needs per 1000 inhabitants for some countries in the region for the decade 1970-1980.

3. Costs versus incomes

8. Housing costs are high in the region both from the point of view of production and of the purchasing power of the majority of the population. In the Caribbean islands the average cost of a dwelling is

^{2/} Donelson et al, op.cit.

Table 2

POPULATION SERVED WITH PIPED WATER, SEWERAGE, AND ELECTRICITY IN SOME COUNTRIES OF THE REGION
(In percentages)

Date of information	Population served with										Electricity ^{a/}		Date		
	piped water			Sewerage			Total				Rural	Urban			
	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban			
Haiti	0.0	0.0	16.5	-	-	-	-	-	-	-	-	-	-	-	1973
Honduras	24.2	0.7	64.8	13.7	0.0	45.6	-	-	-	-	-	-	-	-	1973
Costa Rica	69.3	56.0	95.0	13.7	0.0	40.2	17.0 ^{b/}	-	-	-	-	-	-	-	1973
El Salvador	19.4	0.1	40.0	12.5	0.01	31.0	34.1 ^{b/}	-	-	-	6.7	73.0	-	-	1971
Guatemala	15.0	0.0	40.2	14.5	0.0	42.0	22.1 ^{b/}	-	-	-	-	-	-	-	1973
Nicaragua	40.0	11.7	70.4	20.4	0.0	42.3	40.9 ^{b/}	-	-	-	6.9	76.7	-	-	1970
Dominican Republic	27.8	6.6	55.0	7.0	0.0	15.9	27.5 ^{b/}	-	-	-	-	-	-	-	1973
Panama	48.2	7.8	90.3	33.5	0.7	67.8	52.4 ^{b/}	-	-	-	16.0	90.4	-	-	1970
Mexico	53.2	31.2	67.5	29.3	0.0	48.3	58.9 ^{b/}	-	-	-	27.8	80.7	-	-	1970
Colombia	49.5	21.1	69.9	47.7	32.2	58.8	52.0	-	-	-	-	-	-	-	1973
Jamaica	40.5	20.0	96.2	8.7	0.02	26.7	22.9	-	-	-	-	-	-	-	1973
Cuba	70.6	60.4	76.5	21.4	0.0	33.9	-	-	-	-	-	-	-	-	-
Venezuela	64.4	38.9	76.3	32.9	3.6	46.6	83.1	-	-	-	-	-	-	-	1973
Trinidad and Tobago	53.0	37.7	83.0	17.3	0.0	50.6	92.4	-	-	-	-	-	-	-	1973
Guyana ^{c/}	55.7	-	-	13.0	-	-	-	-	-	-	-	-	-	-	-
Barbados ^{d/}	61.0	-	-	-	-	-	59.0	-	-	-	-	-	-	-	1970

Notes: Source of data for piped water and sewerage figures is Nora Clichevsky et al, Environmental Aspects of Human Settlements in Latin America, SCOPE Project 3, December 1975, unfortunately definitions of "rural" and "urban" are not given in source.

a/ CEPAL, Indicadores del Desarrollo Económico y Social en América Latina. E/CEPAL/AC.69/2/Add. 3, 12 de febrero de 1975.

b/ UN Compendium of Housing Statistics 1972-74. Refers to dwellings.

c/ UNDP/Gov. of Guyana, Urban and Regional Planning Project GUY/74/005 Draft working paper 77/3-5. "Housing". Refers to dwellings. Piped water figure excludes public stand pipe service.

d/ Henderson, *op. cit.*

Table 3

ESTIMATION OF HOUSING NEEDS AS A CONSEQUENCE OF POPULATION GROWTH AND OF RENOVATION, 1970-1980. SOME COUNTRIES OF THE REGION

(Thousands of units)

	Total	Population growth Number	(%)	Stock renovation 2% per annum	Needs (per 1 000 inhabitants)
Colombia	2 387	1 791	75.0	596	9.2
Costa Rica	154	113	73.4	41	7.7
Cuba	933	671	71.9	262	9.8
Dominican Republic	515	389	75.5	126	10.1
El Salvador	353	263	74.5	90	8.6
Guatemala	532	393	73.9	139	8.7
Guyana	71	51	71.8	20	9.0
Haiti	604	442	73.2	162	10.3
Honduras	256	193	75.4	63	8.4
Jamaica	197	136	69.0	61	9.7
Mexico	4 943	3 705	74.9	1 238	8.3
Nicaragua	180	135	75.0	45	7.8
Panama without the Canal Zone	158	116	73.4	42	9.4
Trinidad and Tobago	78	52	66.7	26	7.7
Venezuela	1 118	832	74.4	286	9.2

Source: S. Donelson et. Al. "Financiamiento para los Asentamientos Humanos en América Latina. Actividades de las Agencias Multilaterales". International Institute for Environment and Development, London, July, 1978.

/estimated

estimated between US \$15,000 - 35,000 whereas the majority of the population earn less than US \$1 200 a year.^{3/}

It has been calculated that in Costa Rica, a home of 70 m² would be acquired by 54% of families in 35 years and that in Venezuela, a home of 60 m² would require 19 years for 74% of the population.^{4/} In Mexico City, 55% of the population could not afford the cheapest housing unit available, and in Bogotá 47% of the population are in the same position.^{5/}

9. The possibility of access to housing and other basic necessities in a market economy depends in the first place on the possibility of accumulating a monetary surplus which could be applied to this end. Tendencies in the distribution of income in the region over the last 20 years indicate that the majority of the population is increasingly disadvantaged. Although relative inequality in this respect does not in itself reveal the consuming capacity of the economically disadvantaged, the inflationary tendencies in these economies, when combined with regressive income distribution, result in a deterioration of the real purchasing power of income compared to costs.^{6/}

10. A key contributing factor in the high costs of housing in market economies is the high price of urban land, which in metropolitan areas is estimated at 20-30% of the total housing costs.^{7/} In inflationary conditions, land investment is the most secure defense against a deteriorating currency for domestic capital, and the pattern of rapid urban growth has resulted in sharp increases in the real value of land.

^{3/} V. Corrine McClarty, "Costos y financiamiento de la tierra para asentamientos humanos. Aspectos de la situación en el Caribe". Paper presented at the Reunión Latinoamericana y del Caribe de la Fundación Hábitat de las Naciones Unidas sobre Financiamiento y Operación Administrativa de los Asentamientos Humanos, México, noviembre 1978.

^{4/} G. Rosenbluth, op. cit.

^{5/} O. P. Grimes, *Housing and Low Income Families*, John Hopkins: World Bank, 1976.

^{6/} Karen Giffin, "Precarious Settlements in Metropolitan Areas", HABITAT/CIDA, PRAS/CEPAL, Mexico, December 1978.

^{7/} Ruben Utría: "Los Factores Estructurales del Desarrollo y el Problema de la Vivienda en América Latina" in Unikel and Necochea, Desarrollo Urbano y Regional en América Latina, F.C.E, México 1975.

In the Kingston Metropolitan Area of Jamaica, it is estimated that land values have multiplied by 6 and 8 times during the last decade, the most significant increases being for residential and commercial land.^{8/} Another example of the escalating cost of residential land is found in Trinidad and Tobago where from 1973-1977, the price of land for housing increased 5 and 6 times.^{9/}

11. Further important elements are the monopolistic control of many building materials (eg. cement, paint, etc.) implying that availability and prices are controlled by manufacturers; the cost of finance capital for the building operation (50% - 80% of total investment is frequently financed by capital external to the construction agency); and, the monopolistic control of the more efficient production methods which tend to impede housing cost reduction as a result of higher productivity.^{10/}

12. In rural areas, the cost of land diminishes in importance, but the cost of building materials frequently compensates for the difference due to inflated transport costs. Depending on distances, these can be from 30% - 100% of the cost of the materials themselves.^{11/} Similar increments tend to occur, in general, when materials have to be imported due to insufficient (or absence of) national production. Skilled labour costs in rural areas are also higher.

4. Construction and Investment Capacity

13. 1965 estimates for the whole of Latin America indicate that in order to maintain the housing deficit stationary (10 units per 1000 inhabitants a year) required a construction capacity six times greater than the existing capacity at that time and implied an annual capital investment which represented 33% of the total annual investment resources in the region.^{12/}

^{8/} V. Corrine McLarty, op. cit.

^{9/} Myron W. Chin, "Reduction of Lower Cost Housing Costs using Pre-fabricated Construction in the West Indies" in Housing Science, in Vol. 2, No. 33, pp. 223-235, 1978.

^{10/} Karen Giffin, op. cit. and Utria, op. cit.

^{11/} Utria, op. cit.

^{12/} Utria, ibid. Refers to capacity of firms operating in the sector, clearly "construction capacity" of spontaneous self-help housing is not included.

14. The average growth rate of the construction sector in 11 countries of the wider Caribbean Region was approximately 7% during the decade 1965-1975.^{13/} However, although investment in construction represents a stable 50% of the gross annual fixed investment, the part dedicated to housing fluctuates greatly from one country to another, and within the same country, from year to year. At the same time, public investment in housing also varies considerably, investment in infrastructure and services being more steady.^{14/}
15. The gap between financial requirements and available funds is a perennial problem in the region. The existence of more attractive investments implies a dependence on government investment, international aid and the savings of individuals deposited with specialized financial institutions (like savings and loans associations). All these sources are necessarily limited in the context of the problem.
16. Both governments and multilateral agencies dedicate on average more resources to infrastructure and services than housing, the former being safer investments. Albeit these investments do satisfy basic necessities, they tend to favour higher and middle class areas before poor urban neighbourhoods or rural areas. In urban areas, illegal occupancy impedes service installment, while land characteristics, like topography can also be a serious impediment where invasions occur on marginal land. In rural areas, the settlement pattern can also be a disincentive given the costs involved in providing services by conventional means for a dispersed population where settlements are small and terrain difficult. Where services are dependent on local fiscal income, more affluent neighbourhoods will obviously fare better.^{15/}

^{13/} Calculated on the basis of ECLA annual economic surveys.

^{14/} P. Gutman, "Problemas de financiamiento y Tecnología de Asentamientos Humanos en América Latina", document prepared for PRAS/CEPAL, November 1970.

^{15/} S. Donelson, op. cit. and P. Gutman, op. cit.

5. Precarious settlements^{16/}

17. In urban areas the results of this situation are slums and squatter settlements, the latter being more typical of the continental countries and the former of the islands although both types are present in all countries. Table 4 illustrates the dimensions of this problem for some countries of the region. These types of "precarious settlement" have received considerable attention over recent years both as objects of study and policy because of the proportion of the urban population they house and their rapid growth rates, frequently greater than total urban growth rates.

18. Slums refer to rented accommodation whose ownership is legally established and which is integrated into existing service networks, usually in inner city areas. In many cases, the uses of these areas has changed over time, tending towards increased density as spaces originally utilized as one-family dwellings are progressively subdivided. This represents a deterioration in the services/inhabitants ration, which is accelerated to the extent that the maintenance of existing services is neglected. Although some inner-city areas may also include shacks put up by users, access to space is also achieved by renting it from the owner.

19. Squatter settlements represent invasions of vacant unserviced land. De facto, lots are defined by settlers and some sort of construction is put up for habitation. When these invasions occur on government land in particular, actions to regularize tenancy are frequently carried out and subsequently infrastructure and services are installed. A process of settlement consolidation may be initiated in which individual units are improved by the original owner or a succession of owners over time. Invasions don't always have this "happy ending", essentially it depends on the relative value of the land to the owner (government or private individual), whether or not it has already been set aside for some other specific use and, finally, whether or not it

^{16/} The section on urban precarious settlements are based on Giffin, op. cit.

Table 4

PERCENTAGE URBAN POPULATION IN SLUMS AND SQUATTER SETTLEMENTS.
SOME COUNTRIES OF THE REGION

	Year	Percentage
<u>Venezuela</u>		
Caracas	1974 ^{a/}	42
Maracaibo	1969 ^{b/}	50
Ciudad Guayana	1969 ^{b/}	40
<u>Panama</u>		
Panama City	1970 ^{b/}	17
<u>Colombia</u>		
Bogota	1969 ^{b/}	60
Cali		30
Buenaventura		80
Cartagena	1970 ^{c/}	23
<u>Honduras</u>		
Tegucigalpa	1970 ^{c/}	25
<u>Jamaica</u>		
Kingston	1979 ^{d/}	74
Metropolitan area		
<u>El Salvador</u>		
Total urban population	1976 ^{e/}	52
<u>Guatemala</u>		
Guatemala City	1971 ^{a/}	40

Sources:

a/ S. Donelson et al, op. cit.

b/ Rosenbluth, op. cit.

c/ UN. Global Review of Human Settlements: Statistical Annex, 1976

d/ V. Corrine McLarty: "Costos y financiamiento de la tierra para asentamientos humanos. Aspectos de la situación en el Caribe". Paper presented at the Reunión Latinoamericana y del Caribe de la Fundación Hábitat de las Naciones Unidas sobre Financiamiento y Operación Administrativa de los Asentamientos Humanos, Mexico, noviembre 1978.

e/ UNEP, Regional Office for Latin America: Exploratory Study of the Environmental Situation in Central America. Chapter II, Mexico, December 1976.

can be urbanized - some squatter settlements are established on land which for various reasons, e.g. topography, is totally unfit for settlement.

20. In rural areas, settlements are often equally "precarious" but have received far less attention than their urban counterparts. Density of occupancy figures are sometimes worse than in urban areas (eg. Jamaica) and services are usually entirely absent except in settlements which fulfill activities other than housing agricultural workers and peasants (eg. local administration, commercialization of land produce). In effect, when empirical data show better service coverage figures for areas where modern agriculture is practiced, this is often due to the inclusion of the small towns which tend to develop as commercialization points for agricultural products. When these settlements are removed from the calculations, conditions are shown to be similar to those of areas of subsistence agriculture.^{17/}

6. Construction materials and systems^{18/}

21. In housing built by the public sector and private construction firms, building materials are usually industrially or semi-industrially produced. Self-help builders in urban areas, taken as a whole, also use significant volumes of certain types of industrially produced building materials (e.g. cement blocks, pipes, ceramic tiles, electrical fittings), although the amount acquired by any particular family is reduced. This type of building also frequently uses waste materials (cardboard, tins) at no monetary cost to the user, and used construction elements (doors, window frames), which can be bought at low prices.

^{17/} Ligia Herrera, "Los Asentamientos Rurales en América Latina", HABITAT/CIDA, PRAS/CEPAL, January 1979.

^{18/} Sources: S. Donelson et al, op. cit.; J. Henderson, op. cit.; AID, op. cit.; UN. World Housing Survey, op. cit.; Utria op. cit.; Chin op. cit.; and Chin, "Low Cost Housing in the West Indies - Some Solutions", undated paper; Giffin, op. cit.; Gutman, op. cit.

22. In rural areas, the high costs of industrially produced materials, increased by the inclusion of transport costs in the price, diminishes their use in the self-built homes typical of agricultural workers and peasants. Local vegetable resources and earth tend to predominate as raw materials. These are subject to treatments of varying levels of sophistication in part continuing indigenous or other building traditions (eg. adobe from the colonial period of the Spanish speaking countries), and in part in adaptation to a reduced income. The more elaborated traditional materials (eg. clay bricks, roof riles, woven thatch elements) are also distributed in a market system which functions on a local scale.

23. There are geographical as well as social differences in housing materials although to an increasingly less marked degree as the former tend to be associated with traditional building which depended largely on the raw materials to be found in the vicinity of the construction activity. The use of timber is particularly marked in the tropical areas of the region, either as an industrial product or treated by traditional methods. In Barbados 76% of housing stock is timber built and a similar proportion is to be found in Guyana.

24. None of the smaller countries in the region is self-sufficient in building materials, especially if raw materials for their manufacture are considered. For example, Barbados imports all building materials (local sand and coral limestone are sometimes used as aggregate in cement); in Guyana 60% of the cost of a house is imported; in Jamaica the foreign component of a bag of cement is 60%. In general, for less developed countries, metal products form the largest group of imports followed by timber, cement, sheet glass, sanitary and electrical equipment and paints. The dependence on imported materials can hold up housing programmes, raises costs and, given the volume of materials frequently involved, uses up important quantities of foreign-exchange.

25. In accordance with the organizational characteristics of building in the region, three types of housing technologies are currently used: traditional techniques used especially in rural areas, based frequently

on a pre-capitalist construction tradition; conventional technologies, used in smaller construction activity both in rural and urban areas, based on old established crafts such as stone and brick masonry but incorporating knowledge of new materials like in situ concrete block work and the use of imported sheeted roof coverings; and, modern housing technology, used in major housing and infrastructure projects in urban areas, characterized by being (unskilled) labour saving and depending heavily on imports of expensive materials and components, sophisticated plant and machinery and sometimes professional skills. It applies to new materials, advanced reinforced concrete technology, pre-stressed concrete, steel frame components, mass production of building components and sometimes heavy prefabrication.

26. Modern building technology is, in fact, only found in the larger countries of the region where the scale of production and the capital availability make this type of construction initially feasible, although prefabricated wooden components have been experimented with in Barbados by the public sector. Some countries have developed their own prefabricated systems, namely Colombia, Cuba and Venezuela, while other like Jamaica and Trinidad use imported systems.

27. While the rationalization of building components like steel structures, has lowered costs, in general, the cost reductions expected of the more sophisticated of these technologies, have not really been fully demonstrated in practice. This is not due to the technology itself, but to a series of other factors which affect costs. Construction activity is very vulnerable to variations in general economic conditions, and the lack of a sustained effective demand implies periods of underutilization of capital goods. Firms using capital intensive technology do not have the option open to more labour intensive firms of responding to recessive periods through contraction of the labour force. The lack of continuity in construction activity thus works against cost reduction since the costs of diminished production will be proportional to the investment in capital goods which are underutilized in recessive periods. At the same time, there will be attempts

/during

during periods of intense activity to gain large profits in view of the general experience that such periods do not last. On the other hand, modern building technology requires a wide range of professional, managerial, supervisory and technical skills which are not always available locally and need to be imported. Skills in short supply or which need to be brought from abroad will be more expensive and thus reflect negatively in production costs. Difficulties in the flow of building materials will also affect costs, since they imply inefficient use of expensive capital goods, and transportation problems either of materials or products can also increase overall production costs. Finally, two further factors should be mentioned: firstly, that in total housing costs, the cost of land represents a large proportion, independently of technology, although high rise techniques affect this relationship. Secondly, albeit the industry as a whole is less oligopolic than many other industries in the region, the number of companies which operate with the more sophisticated of the modern technologies is, in fact, relatively limited, and such a structure favours monopoly rents.

7. Effects on natural resources

a) Land

28. Rapid growth of metropolitan areas has implied in many countries the absorption of agricultural land by settlements. The only settlement reserves left to Mexico City, for example, are, in fact, agricultural lands. It is calculated that currently 40% of the population is settled illegally on ejidal lands, while by 1990, 26.5% of the agricultural land around the city will have been absorbed by settlement.^{19/} Similar encroachment is also reported for San José, Costa Rica, Kingston, Jamaica and Bogotá, Colombia.

^{19/} El Día, Mexico City, 28th May 1979.

29. Urbanization can also be the origin of flooding, when deforestation and large earth movements are not accompanied by adequate drainage. This occurs, for example, in Venezuela where it is estimated that 25% of settlements of more than 2 000 inhabitants have a high flood potential.^{20/}

b) Water

30. The deterioration of the quality of surface water affects all the countries in the region to different degrees depending on the level of industrial activity. However, sewage fluids and solids, and solid waste of other sorts like garbage, also affect surface waters. Inadequate coverage of piped water and sewerage systems determine, on the one hand, that an important part of the urban population resorts to polluted surface waters for their needs, and, on the other, that sewage is dumped directly into the closest water courses or to the underground water layers.^{21/}

31. Large metropolitan areas make enormous demands on water sources and sometimes sources in the closer surrounding areas do not suffice independently of wastage due to bad maintenance (e.g. Mexico City, 30% of water is lost for this reason).^{22/} Increased infrastructure using more distant sources not only affects costs but also can prejudice activities like agriculture (Mexico City is again a case in point).

c) Air

32. Air pollution is becoming more and more important in urban areas in the region, mainly as a consequence of the emanations from industrial plants located nearby or within them and of increased motor transport which produces harmful fumes. This type of pollution is characteristic of areas close to large plants such as the refineries of sulfurized

^{20/} ECLA. Río de Janeiro Office: Medio Ambiente en América Latina: Perfiles Nacionales. Undated.

^{21/} N. Clichevsky et al, op. cit.

^{22/} ECLA. Río de Janeiro Office, op. cit.

metals, industrial mills for certain products or with obsolete technology, and sugar mills. Air pollution takes two different shapes: suspended dust (the most frequent and dangerous form) and unpleasant odors from garbage dumps or "spontaneous" deposits. In Mexico City^{23/} atmospheric pollution in the form of suspended dust has reduced visibility from 12 km in 1940 to 2 km at present. In the same city, 60% of the garbage produced daily is not collected for appropriate disposal.

33. Although the size of the settlement is one of the most important variables for this form of pollution, it may also affect small or medium sized settlements in which certain industries are located. What is exclusively inherent to larger settlements is the pollution brought about by car fumes.^{24/}

d) Non-renewable energy resources

34. In countries with no possibility of generating electricity by harnessing fast flowing rivers, as is the case of all the Caribbean islands, fossil fuels are the principal sources of energy.^{25/} Since all but two of the islands (Barbados, Trinidad and Tobago) are without their own sources of these fuels, they are acquired at a very high cost and with negative effects on the balance of payments (Barbados is not self-sufficient and therefore is also affected by these problems). This dependence on imported fossil fuel has implications for the type of building materials produced and the use of capital intensive construction systems. Cement production, for example, is relatively energy intensive and, in effect, in Jamaica 40% of the cost of a bag of cement is taken up by the fuel component.^{26/} Modern construction technology is also relatively more energy intensive than conventional methods, not

^{23/} ECLA, Rio de Janeiro Office, op. cit.

^{24/} N. Clichevsky, op. cit.

^{25/} This is also the case in Guyana which has not yet developed its hydroelectric potential.

^{26/} AID Office of Housing, op. cit.

to say, traditional techniques firstly, from the point of view of the energy used in manufacturing inputs, but also due to the machinery employed. Also the design of building associated at present with sophisticated technology tends to be more suited to temperate rather than tropical climates, giving rise to the need for air cooling systems which are usually, in practice, those with high energy consumption.

C. Government Intervention^{27/}

a) Public control of land use and land values

35. Public regulation over land use is necessary to assure that land is transformed to urban uses in such a way that costs per inhabitant are minimized while benefits are maximized. The cost of spatial expansion is related to both the amount of land transformed to urban use, and the relative cost of such transformation per inhabitant. The type of land incorporated affects the cost of expansion directly when physical characteristics make the installation of infrastructure relatively more costly, and indirectly when the land absorbed had been in prior use for agricultural production.

36. Public intervention in limiting urban expansion through simple legislative controls on growth, exemplified by the prohibition of new residential subdivisions within Mexico's Federal District, are clearly ineffective. The result in this case was a proliferation of unauthorized subdivisions in adjacent municipalities, and even within the Federal District itself, and the legislation was eventually reversed.

37. Legislation on the density of land use, which could limit the extent of expansion through the establishment of maximum spatial standards, has not been attempted in any country. Thus, the movement of high-income groups away from city-center areas has resulted in the growth of low-density subdivisions which represent a relatively inefficient use of land as well as high costs in the extension of public service networks. While

^{27/} This section is taken largely from Giffin, op. cit.

low-income peripheral settlements have been criticized in these same terms, it is necessary to point out that high-income groups tend to choose peripheral locations because of their advantages, while low-income settlements are much more a function of lack of alternatives. The increased cost of servicing these areas is thus avoidable only through measures which provide low-income populations with access to more suitable sites. This implies a need for public action in the creation and appropriation of urban land values.

38. The mechanisms available for controlling land use and speculation, and assuring public benefit from the values generated by urbanization, are the establishment of adequate property taxes, and direct public participation in the urban land market (including expropriation and the establishment of land reserves). Legal devices are only as effective as their implementation, however, and problems are abundant.

39. There are difficulties in collecting property taxes, for example, in Mexico City where valuations may vary by as much as 100% from year to year.^{28/} A more adequate valuation technique in the State of Mexico, on the other hand, increased revenues by 300% in three years even though the tax rate was reduced by 25%.^{29/}

40. The creation of publicly-owned land reserves is a widely-noted condition for rational planning of urban development and the control of speculation. The Venezuelan legal statutes on expropriation are distinguished by their progressive nature, but practical application has been constrained by the high costs of urban land. Thus, public expropriation necessary for the housing programmes of the Banco Obrero (now INAVI) has been limited in some cases by the quantity of funds required to pay for expropriated property^{30/} an effect which occurs in most Latin American

^{28/} S. Purcell and J. Purcell, "Community Power and Benefits from the Nation: The Case of Mexico", in Latin American Urban Research, Vol. 3, 1973.

^{29/} G. Garza and M. Schteingart, "Mexico City - The Emerging Metropolis", in Latin American Urban Research, Vol. 6, 1973

^{30/} United Nations: Mejoramiento de Tugurios y Asentamientos no Controlados, New York, 1972.

countries.^{31/} In Jamaica, this problem is complicated by institutional arrangements whereby total resources for this purpose are allocated to a series of government agencies rather than a central body, thus diminishing the size of operation possible at any one time.^{32/}

41. Clearly, public intervention in the land market must be of considerable dimension if it is to affect the market price of urban land. The Mexican Institute INFONAVIT in creating land reserves have had reported success in decreasing the cost of urban land for government housing projects the cost of land being to 4% of the sale value of housing units.^{33/}

42. Despite these notable benefits which result from public purchase of land, however, the continued functioning of a capitalist land market has meant that public purchases tend to occur in peripheral areas where prices are lowest, resulting in an increased financial burden in the provision of infrastructure and services.^{34/} Furthermore, the anticipated extension of services to these areas serves to increase the value of adjoining properties. If these are privately-owned, the result is increased land prices and speculation in the new areas^{35/} which tends to force future public development into still more distant areas, indicating the difficulties inherent in partial efforts at controlling the market forces which exist.

b) Infrastructure and services

43. The unequal distribution of infrastructure and services suggests that criteria for public investment are largely based on the desire to guarantee returns on capital invested.^{36/} On the other hand, since many services depend on local fiscal income, either applied directly or as a

^{31/} United Nations: Políticas de Tierras Urbanas y Medidas de Control del Uso de la Tierra, New York, 1973.

^{32/} V. Corrine McLarty, op. cit.

^{33/} O. G. Nuñez, "Un sistema corporativo para asalariados bajos", INFONAVIT, 1973.

^{34/} Ibid.

^{35/} United Nations: Tierra para Asentamientos Humanos, New York, 1973.

^{36/} F. Barreto and R. Gilbert: "El déficit de los servicios urbanos: ¿una limitación estructural?", Revista de la CEPAL, 2nd.Semester, 1977.

basis for loans from other sources (e.g. federal government), less affluent neighbourhoods or areas are less well served.

44. The value created by public urban improvements increases the market value of the property affected. When this land is privately owned, added value accrues to these segments of the population. Legislation in Colombia, for example, includes provision for public recovery of at least part of the increased value through special taxation.^{37/} However, in practice, the result of public improvements is frequently a further concentration of the benefits of urban development.

c) Public investment in the housing market: finance and construction

45. The savings and loans associations established in most countries in the region provide individual loans for the purchase of housing and act to extend the housing market. Such measures are clearly necessary in market economies where housing is produced as a commodity, even in developed societies where incomes are much higher and access to housing much less problematic. However, the use of this type of credit facility is largely confined to middle and upper income groups since the requirements (the possibility of saving significant sums, taking up long term commitments, guarantees) are unattainable by low or irregular income groups. This is especially true when loans are available only for completed housing units since savings required are higher in this case. The Colombian Banco Central Hipotecario provides an example of loans differentiated according to size of house: in 1973, "minimum solution" loans (applicable to houses up to 40 m²) represented 15.1% of the total number of loans granted, and only 4.4% of total funds lent, while "maximum solution" loans (90 m² and above) represented 52.9% of total loans and 73.7% of total funds lent.^{38/}

46. The national housing authorities of Trinidad and Tobago, and Barbados are examples of public bodies offering credit facilities to low

^{37/} United Nations, op. cit.

^{38/} Rosenbluth, op. cit.

and middle income groups where very low interest rates and unconventional guarantees (e.g. chattel mortgages) have been introduced in an attempt to include very low income groups. These attempts still require regular incomes, however, in order to meet the periodic payments. In the case of Trinidad, loans are made for land purchase and home improvements as well as dwelling purchase and construction.

47. Direct public intervention in the production of housing (social interest housing), whether constructed by government agencies themselves or by means of contracts to private companies, also tends to exclude the poorer groups, usually because they are linked to financial mechanisms similar to those mentioned above. Mexico's INFONAVIT programme of housing for salaried workers represents one of the few examples of housing programmes which require the participation of employers, in this case, through a contribution of 5% of salaries to the housing fund. No down payment is required, and monthly payments are based on a percentage of salary earned (14% for 1 to 2.5 minimum salaries; 10% for higher incomes). These characteristics allow the plan to reach salaried workers whose average income is 1.6 minimum salaries, a considerable achievement. In terms of the absolute numbers served, however, only 2.85% of the 4 million affiliates will be allocated credits.^{39/} As in the case of other government housing projects, the population which depends on irregular earnings or unstable employment bonds is not included in the plan.

48. Public construction for rental is found in Trinidad and Tobago and Barbados, although in both cases the tendency is currently to invest more in units for sale, rather than expand the rental accommodation available. This type of accommodation is aimed at the lowest income groups, and is subsidized in the case of Barbados by 75%. Maintenance is carried out by the government agency, and it is to be supposed that total costs are very high which probably explains the loss of interest in this type of solution. Given the socio-economic characteristics of the population served, rent arrears are a serious problem, for example, in Barbados it

39/ Nuñez, op. cit.

is calculated that for 1978, the accumulated arrears amounted to an average of B\$5 000 per rental unit when the highest weekly rent is B\$15.^{40/}

49. Sites and services, and aided self-help are approaches which have been implemented by some countries with the intention of extending government sponsored housing action to the poorer groups and contrarresting the difficulty of providing sufficient finished units. Essentially, these programmes seek to aid and orientate what occurs anyway in urban areas, (i.e. squatting). Usually house construction is carried out by the future occupiers in whole or part payment for land, infrastructure and materials which are financed by the sponsoring government entity. In principal such programmes recognize both the low income groups' need to pace housing expenditure and construction in terms of limited available resources.

50. This type of programme offers a wide range of variations in practice and has been implemented to very different degrees in the different countries of the region. In Guyana, for example, it is the only sort of public housing programme in existence. In this case, the construction of a settlement is also linked to the provision of sources of employment, though the operation of interrelated co-operatives. In other countries more limited experiences have been carried out, frequently using funds from international agencies.

51. While such programmes have at times been criticized as simply institutionalizing substandard living conditions, they have clear comparative advantages over the public construction or finance of standard housing units which tend to eliminate low-income families from any benefit, as noted above. Frequently, however, the elimination of lowest-income families is not totally avoided and the extent of public investment is not sufficient to achieve adequate settlement standards either within the target areas or for the population as a whole. In this case, however, the inability of such schemes to achieve their

40/ B\$1.98 = US\$1.00 approximately.

goals is related less to their distributive criteria and operational plans than to the constraints imposed by the discrepancy between available public funds and the size of the low-income population, and these are questions which exceed the boundaries of any specific programmes.

52. Finally, some governments have adopted policies which aim to stimulate the supply of relatively low cost housing, by the use of fiscal incentives for the construction industry. An example of this type of intervention is found in Venezuela with success, although it is not clear how long such incentives can be maintained.^{41/}

d) Rural areas

53. The vast majority of the types of public intervention mentioned above refer to urban areas. On the whole, rural areas are unattended except in cases where provision of housing forms part of a rural development programme (e.g. Plan Chontalpa in Mexico) or is linked with a strategic industry (e.g. housing for sugar workers in Jamaica).

9. Research on new technologies

54. It should be remembered that the countries in the region spend little on research and development of any sort, thus it is not surprising to find that in the area of construction systems and building materials, the quantity of work carried out both in terms of projects and of investment is not large. Where settlement design is concerned, it is safe to say there is none. The region is principally a consumer of technology rather than a producer. There are notable exceptions and innovations have been produced by some of the larger countries (e.g. prefabricated building systems) however tend to constitute adaptative innovations rather than technological breakthroughs.

55. The Science and Technology Councils created in the larger countries in recent years have on the whole been assigned a marginal role vis-a-vis

^{41/} A. Cilento, "Producción de Viviendas de Interés Social", INAVI/ Ministerio del Desarrollo Urbano, Venezuela, 1977.

the operation of government despite the fact that some are responsible directly to the Presidency: frequently, scientific and technological policy implicitly contradicts socio-economic policy, and if either of the two are put into practice, the latter predominates.^{42/}

56. At least, four of the countries (Trinidad and Tobago, Venezuela, Cuba, Mexico) have research programmes related to building and construction materials and in the case of Cuba considerable funds have been allocated for this purpose. On the whole, continuous programmes are very rare and a direct relationship with production even more so.

10. Multilateral aid

57. A recent study^{43/} analyzing the programmes of eight multilateral agencies which operate in the region and which finance housing and related service activities came to the following conclusions: the agencies concentrate on infrastructure and service projects, while dwelling construction occupies a very small percentage of loans. These latter have been replaced by sites and services projects and precarious settlement improvement. Loans for urban transport, recreation and urban telecommunications have also been minimal. In general, the quantity of resources made available for loans in the sector is totally inadequate compared with needs.

58. Other agencies like ECLA, UNEP, PAHO, UNESCO and OAS, all operate one way or another with various forms of assistance, in these cases

^{42/} For a discussion of these and other questions linked with science and technology in less developed countries, see F. Sagasti, Ciencia y Tecnología para el Desarrollo, IDRC publication

^{43/} S. Donelson et al, op. cit., The agencies are: World Bank Group (IBRD including IFC and IDA); Interamerican Development Bank; Central American Economic Integration Bank; Caribbean Development Bank; Andean Development Corporation; Latin American Savings and Loans Bank; European Development Fund; United Nations Development Programme.

usually technical rather than financial. Some new areas are being promoted, for example technological development^{44/} but the majority of the financial resources are still dedicated towards traditional areas and moreover those which constitute the safest investments.

^{44/} ECLA/UNEP Human Settlements Technology Programme based in Mexico City. ECLA also has a Science and Technology Unit, based at its Mexico City Offices. In the context of research, the active Andean Technological Development Programme with some projects related to construction and building materials should be mentioned as an important regional effort involving two countries in the wider Caribbean area, i.e., Venezuela and Colombia.

III. CONCLUSIONS

The foregoing overview of selected aspects of human settlements in the wider Caribbean area permits the identification of some of the problems which might be dealt with in the context of the Caribbean Environmental Management Project. However, before entering into detail in this respect, it is necessary to make some general remarks regarding the main subjects of the two substantive chapters of this report, namely the spatial distribution of the population, and the situation of housing and related services.

It is widely accepted that population movements and distribution in a given national territory are largely the result of the organization and type of economic activities which characterize the country in question, and their evolution over time. In this context, the style of development adopted or permitted, explicitly or implicitly, by national governments determines to an important degree the characteristics of settlement patterns in any particular case. The production and distribution of housing and physical service infrastructure are also affected by this sort of factor. The particular mix of forms of production and the apparent "inefficiencies" of the distribution systems can only really be understood in the context of the economy as a whole.

On the other hand, a different sort of problem arises from the fact that the institutional arrangements in the majority of the countries would appear to be relatively incipient regarding the treatment of human settlements in an integrated manner. On the whole, the different aspects of the subject are dealt with by discrete and often not well articulated entities. For example, the planning superstructure is frequently imposed on top of preexisting legislation defining local or sectorial decision making prerogatives which, in practice, can make implementation somewhat difficult.

As a consequence of the above situation, radical changes in any given set of settlement problems would seem to frequently require

/major

major changes in other areas of national life. However, it is clear that decisions in this respect are the prerogative of national governments and although experiences may be shared between countries, solutions have to be sought by each country according to its particular needs and priorities.

In this context, the problems proposed as follows are fundamentally those which might be dealt with at a regional level, through the joint efforts of groups of interested countries and international co-operation. These are problems which require the creation, adaptation and diffusion of knowledge regarding settlement and construction in the humid tropics which characterize the larger part of the wider Caribbean area.

It is undoubtedly true that the bulk of recent developments in urban and building design, and, urbanization and construction technologies have taken for granted temperate climates, in some cases the abundance of certain resources (e.g. energy, skilled manpower), and in others, a particular lifestyle. Frequently, none of these conditions are fully met in the countries of the region. Although a considerable amount of research has been accumulated on some aspects of design and technology for tropical areas, in many cases results are not developed to the point of fairly straightforward large scale use, and in others, constitute a sort of "fringe knowledge" rarely incorporated into the design and construction processes. The most common channels for information transfer in this latter respect (the media, professional training, foreign construction and consulting companies amongst others) tend to propitiate the adoption of "modern" models, without adaptation, running the risk of high social, environmental and monetary costs.

The prospect of considerable new settlements in the humid tropical areas most typical of the continental countries of the region and the growth of existing settlements in all cases, makes the revision of the current design and construction tendencies particularly important. To this end, new research and development is needed, based

on an appreciation of the state of the art of existing knowledge and aimed at systematically testing partial developments with a view to introducing modifications and obtaining large scale feasibility, creating new knowledge where gaps are identified, and adapting existing conventional knowledge to tropical conditions. Where possible, research and development efforts should be linked to design and construction agencies so as to promote their application. At the same time, it seems clear that better documentation is needed on the social and environmental effects of current settlement and construction patterns, to the extent that these can be separated from the economic and political context in which they occur. A further line of research, therefore, would be a series of impact studies, which, by registering the effects of past (or current) practice, would be important sources of information on the types of problems entailed by particular patterns of development. In the meantime, existing knowledge of both types should be made available to those who take design and technological decisions, so as to permit decision making on the basis of more complete information on the different options open and their effects. In the longer term, the incorporation of both technical and "impact" knowledge into professional training programmes would contribute towards the production of new generations of professional personnel, better prepared to deal with the context in which they will operate.

ANNEX

This appendix listing entities whose activities are related to human settlements is presented in three parts: physical planning, management, finance; research and development; and training. Within each section, the countries are listed alphabetically. It should be noted that (a) not all countries in the wider Caribbean Region are listed and (b) the lists make no claim to being exhaustive. Due to the short period of time available, the lists were made up from information already on ROU files 1/, further research was not possible. In some cases where information was available and the name of the entity was not self-explanatory, brief notes have been added. Where possible, the postal address of the entity is indicated.

1/ Fichero Institucional 1978 and subsequent additions.

PHISICAL PLANNING, MANAGEMENT AND FINANCE

Barbados

Ministry of Housing, Land and Environment
Marine House, Hastings, Barbados, W.I.

Town and Country Planning Office
Bay St., Bridgetown, Barbados, W.I.

- Responsible for physical planning

National Housing Corporation
Country Road, St. Michael, Barbados, W.I.

- grants loans for home construction and purchase; provides
rental accomodation

Barbados Mortgage Finance Company
Country Road, St. Michael, Barbados, W.I.

- Subsidiary of Barbados National Bank, grants loans for
building or purchase of dwellings

Belize

Ministry of Education and Housing
3 Stann Creek, Belmopan, Belize

Colombia

Corporación Centro Regional de Población
Apdo. Aéreo: 24846, Bogotá, Colombia

Organismo para el Desarrollo de la Orinoquía y la Amazonia
(ORAM), Torre Administrativa, 7o. Piso, Ciudad Universitaria
Bogotá, Colombia

Instituto de Crédito Territorial
Carrera 13, No. 1851, Bogotá, Colombia

Instituto Colombiano de la Reforma Agraria INCORA,
Centro Administrativo Nacional CAN, Oficina 531, Bogotá,
D.E., Colombia

Depto. Administrativo de Planeación Distrital,
Carrera 30, No. 24-90, Bogotá, Colombia

/Depto.

Depto. Nacional de Planeación, Calle 26, No. 13-19
Bogotá, Colombia

Costa Rica

Instituto Nacional de Vivienda y Urbanismo
Apdo. 25-34, San José, Costa Rica

Oficina de Planificación Nacional y Política Económica
Av. 3-5/Calle 4, Edif. Alfa, San José, Costa Rica

Instituto de Tierras y Colonización
Barrio Aranjuez, San José, Costa Rica

- Carries out official programmes of colonization
and agrarian reform

Instituto de Fomento y Asesoría Municipal

- Financial and technical assistance for municipal authorities

Cuba

Centro de Estudios y Control del Desarrollo de la Vivienda
(CEGONDEVI) Calle 15, No. 410 (entre F y G), Vedado,
La Habana, Cuba

- Advisory body on housing policy (technical norms, design,
investment programmes, allocation criteria, information)

Comité Estatal de la Construcción

Instituto de Planificación Física

El Salvador

Fondo Social para la Vivienda, Diagonal Principal y 25 Avenida
Norte No. 1338, San Salvador, El Salvador

Ministerio de Planificación (Unidad de Desarrollo Urbano y
Regional, Unidad de Desarrollo Físico) Casa Presidencial,
San Salvador, El Salvador

Fundación Salvadoreña de Desarrollo y Vivienda Mínima,
19 Av. Norte 633, San Salvador, El Salvador

Instituto de la Vivienda Urbana
Av. Juan Bosque, San Salvador, El Salvador

Subsecretaría de Vivienda y Desarrollo Urbano (Ministerio de Obras Públicas) Palacio Nacional, San Salvador, El Salvador

Guatemala

Banco Nacional de la Vivienda, 6a. Avenida 1-22, Zona 4, Guatemala, Guatemala

Consejo Nacional de Planificación (Unidad de Desarrollo Urbano y de la Vivienda) Edif. Finanzas Públicas, 6o. Nivel, Guatemala, Guatemala

Banco Nacional de Desarrollo Agrario

Comité de Reconstrucción Nacional,
Instituto de Previsión Militar, 5a. Avenida 6.06
Zona 1, Guatemala, Guatemala

- Coordinator of national effort and international co-operation for areas affected by earthquake. Now deals with precarious settlements in general.

Guyana

Central Housing and Planning Authority
Homestretch Avenue, D'Urban Park, Georgetown, Guyana

- Responsible for urban physical planning and low cost housing. Currently co-ordinates joint UNDP/Rep. of Guyana, Urban and Regional Planning Project

Land Development Agency

- New agricultural settlements

Honduras

Financiera Nacional de la Vivienda, Apdo. 1194,
Honduras, Tegucigalpa, D.C., Honduras

Instituto de Vivienda

Instituto Nacional Agrario

Consejo Superior de la Planificación Económica
(Depto. de Vivienda, Depto. de Planificación Regional y Local)
Edif. Banco Atlántida, Calle Real de Comayagüela,
Tegucigalpa, Honduras

Federación Hondureña de Cooperativas de Vivienda Limitada

Dirección General de Urbanismo (Secretaría de Comunicaciones,
Obras Públicas y Transportes)

- Physical planning

Junta Nacional de Bienestar Social

Jamaica

Ministry of Housing

- Direct responsibility for housing of families with less
than \$ 3,500 per year

National Housing Corporation, Royal Bank Building, Knutsford
Boulevard, Kingston 5, Jamaica

- Responsible to Min. Housing, provides housing for households
with incomes in excess of \$3 500 a year. Also undertakes
joint ventures with private developers.

Ministry of Local Government

- Responsible for providing and improving housing for very poor.

Urban Development Corporation, 12 Ocean Boulevard, Kingston
Mall, Jamaica

- Quasi-public organization operating under Ministry of
Finance and Planning, originally concerned with urban
renewal and commercial development, recently has undertaken
new housing projects.

Ministry of Agriculture

- Operates Farm Housing Scheme under Project Land Lease III
in rural areas. Housing is leased with agricultural land

Sugar Industry Housing, Ltd., Scotia Centre Bldg., Duke St.
Kingston

- Government owned corporation affiliated with Sugar Industry
Authority, provides housing for sugar workers, including
retired or disabled

National Planning Agency

- Central co-ordination agency for National 5 year Development
Plan 1978-1983.

Town and Country Planning Authority, 2A Manhattan Road, Kingston 5

- Technical advisory body in consultation with local authorities (parishes) in preparing physical development plans and reviewing specific development proposals, which may affect the locations and character of future land use activities.

National Housing Trust, 16 Oxford Road, Kingston

- Operates compulsory savings scheme in which both employers & employees contribute. Finance construction and improvement of dwellings.

México

Comité Administrador del Programa Federal de Construcción de Escuelas, Vito Alessio Robles 380, México, D. F.

Proyecto de Desarrollo Regional y Urbano
Naciones Unidas/Secretaría de Programación y Presupuesto,
Fray Servando Teresa de Mier No. 77, México, D. F.

Instituto del Fondo Nacional de la Vivienda para los Trabajadores (INFONAVIT) Barranca del Muerto 280, Col. Guadalupe Inn, México, D. F.

Instituto Nacional para el Desarrollo de la Comunidad (INDECO)
Niños Héroe No. 139
México, D. F.

Subsecretaría de Asentamientos Humanos y Obras Públicas
Constituyentes No. 947, México, D. F.

- Responsible for national urban planning

Nicaragua

Vice-Ministerio de Planificación Urbana,
Apdo. 3591, Managua, D.N., Nicaragua

Panamá

No Information

República Dominicana

Instituto Nacional de la Vivienda

Dirección de Estudios Regionales, Oficina Nacional de Planificación

Secretariado Técnico de la Presidencia (punto local)

/Trinidad

Trinidad & Tobago

Town & Country Planning Division (Ministry of Finance, Planning and Development), Chaguaramas Convention Centre, Trinidad and Tobago, TT.WI.

National Housing Authority, 35 Queen St. Port of Spain, TT.WI

Bureau of Standards, Salvatori Building, Port of Spain, TT.WI

Venezuela

Instituto Nacional de la Vivienda, Edif. Banco Obrero, Cruz Verde, Caracas, Venezuela

Fundación para el Desarrollo de la Comunidad y Fomento Municipal Apdo. 50218, Caracas, Venezuela

Ministerio del Desarrollo Urbano

RESEARCH AND DEVELOPMENT

Barbados

(See also Section 17 Regional Entities)

CONFITH project, experimental development of the use of sugar cane bark for chip board. Ministry of Agriculture with Canadian Technical assistance. Currently at prototype stage.

Belize

No information

Colombia

Centro de Desarrollo Integrado Las Gaviotas
Apdo. Aéreo 18261, Bogotá, Colombia

- Based in Orinoquía, experimental research and development station carrying out interesting work of new technologies for the area, including housing and related services

Programa Colombia/UNESCO/UNDP: Proyecto de Desarrollo Científico Tecnológico, Bogotá, Colombia

Fondo Colombiano de Investigaciones Científicas y Tecnológicas y
Proyectos Especiales "Francisco José de Caldas". Programa Especial
de Vivienda y Materiales de Construcción, Apdo. Aéreo: 051580-29828.

- Responsable to the Consejo Nacional de Ciencia y Tecnología

Departamento de Construcción, Facultad de Arquitectura,
Universidad Nacional de Colombia, Apdo. Aéreo 6209,
Bogotá, Colombia

Centro de Planificación y Urbanismo, Universidad de los Andes,
Apdo. Aéreo 4676, Bogotá Colombia

Centro Nacional de Estudios de la Construcción,
Apdo. Aéreo 34219, Bogotá, Colombia

Fundación para el Fomento de la Investigación Científica y
Tecnológica, Apdo. Aéreo 27872, Bogotá, Colombia

Fundación Investigación de Vivienda, Apdo. Aéreo 50604,
Medellín, Colombia

Instituto de la Construcción, Universidad del Valle,
Apdo. Aéreo 2188, Cali, Colombia

Facultad de Ingeniería, Universidad de los Andes,
Calle 19A, Carrera 1a. E, Bogotá, Colombia

Programa Orinoquia - Amazonia ORAM,
Torre Administrativa, Universidad Nacional de Colombia,
Carrera 30, Calle 45, Bogotá, Colombia

Centro Colombiano de la Construcción - Bonvicentrum de Colombia,
Carrera 8a., No. 16-38, Bogotá, Colombia

Servicio de Información sobre Desarrollo Urbano, Ciudad
Universitaria, Carrera 30 Calle 45, Bogotá, Colombia

Depto. de Ciencias Políticas - Investigaciones sobre Vivienda y
Desarrollo Urbano, Universidad de los Andes, Calle 19A,
Carrera 1a. E, Bogotá, Colombia

Instituto de Crédito Territorial, Carrera 13, 13-51, Oficina 602
Bogotá, Colombia

Costa Rica

Instituto Nacional de Vivienda y Urbanismo
Apdo. 25-34, San José, Costa Rica

Cuba

Facultad de Construcciones, Instituto Politécnico Superior,
J.A. Echeverría, CUJAE, Marianao, La Habana, Cuba

Centro de Investigación y Experimentación de la Construcción
Apdo. Postal 6180, La Habana, Cuba

El Salvador

Fundación Salvadoreña de Desarrollo y Vivienda Mínima,
Apdo. Postal (06) 421, San Salvador, El Salvador

Guatemala

Centro de Estudios Urbanos y Regionales,
Universidad Nacional de San Carlos, Ciudad Universitaria,
Zona 12, Guatemala, Guatemala

Banco Nacional de la Vivienda, 6a. Avenida 1-22
Zona 4, Guatemala, Guatemala

Centro Mesoamericano de Estudios sobre Tecnología Apropiada,
Apdo, 602 y Apdo. Postal 1160, Guatemala, Guatemala

Centro de Investigaciones de Ingeniería, Universidad Nacional de San Carlos
Ciudad Universitaria, Zona 12
Guatemala, Guatemala

Consejo Nacional de Planificación (Unidad de Ciencia y Tecnología)
Edif. Finanzas Públicas, Guatemala, Guatemala

Facultad de Arquitectura, Universidad Nacional de San Carlos,
Ciudad Universitaria, Zona 12,
Guatemala, Guatemala

Facultad de Ingeniería (Centro de Investigaciones) Universidad
Nacional de San Carlos, Ciudad Universitaria, Zona 12,
Guatemala, Guatemala

Instituto Centroamericano de Investigación y Tecnología
Industrial, Av. La Reforma, 4-47, Zona 10,
Guatemala, Guatemala

Guyana

National Science Research Council

/Honduras

Honduras

Consejo Superior de Planificación Económica, (Depto. de Ciencia y Tecnología), Edif. Banco Atlántida, Calle Real de Comayagüela, Tegucigalpa, Honduras

Jamaica

Scientific Research Council, Hope, Kingston 6, Jamaica

National Resources Conservation Department
55 1/2 Molynes Road, Kingston 10, Jamaica

México

Centro de Estudios Económicos y Sociales del Tercer Mundo, A.C.
San Jerónimo Lídice, México 20, D. F.

Centro Operacional de Vivienda y Poblamiento, A.C.
Tlaloc 40, 2o. Piso, México, D. F.

El Colegio de México, Camino al Ajusco No. 20,
México 20, D. F.

Instituto de Investigaciones Eléctricas, Palmira,
Cuernavaca, Morelos

Centro de Investigaciones Ecológicas y Tecnología Intermedia,
Universidad Autónoma de Nuevo León, Ciudad Universitaria,
Monterrey, Nuevo León, México

Centro de Investigaciones Urbanísticas, Universidad Autónoma
de Nuevo León, Villagómez 110 Norte, Monterrey, Nuevo León,
México

Centro de Investigaciones Biológicas, Universidad Autónoma de
Nuevo León, Galeana 575 Sur, Monterrey, Nuevo León, México

División de Ciencias y Artes para el Diseño, Universidad
Autónoma Metropolitana/Xochimilco, Calzada del Hueso y
Canal Nacional, México, D. F.

División de Ingeniería y Arquitectura, Instituto Tecnológico
de Estudios Superiores de Monterrey, Sucursal de Correos "j"
Monterrey, Nuevo León, México

Instituto de Ingeniería, Universidad Nacional Autónoma de
México, Ciudad Universitaria, México, D. F.

Sección de Graduados y de Investigación Científica y Tecnológica de la Escuela Superior de Ingeniería y Arquitectura, Edificios 11 y 12 de la Unidad Profesional de Zacatenco, Lindavista, México, D. F.

Centro de Eccdesarrollo, Apdo. Postal 11-440, México 11, D. F.

Dirección General de Tecnología para la Autoconstrucción, Secretaría de Asentamientos Humanos y Obras Públicas, Constituyentes 947, México 10, D. F.

Dirección General de Aprovechamiento de Aguas Salinas, Secretaría de Asentamientos Humanos y Obras Públicas, Boulevard Pípila No. 1, Presa San Joaquín, Tecamachalco, México 10, D. F.

Consejo Nacional de Ciencia y Tecnología (CONACYT) Insurgentes 1677, México, D. F.

Nicaragua

No information

Panamá

Laboratorio de Construcción, Universidad de Panamá Facultad de Arquitectura, Estafeta Universitaria, Panamá, Panamá

Depto. de Investigación y Estudios de Post-Grado, Universidad de Panamá, Facultad de Arquitectura, Estafeta Universitaria, Panamá, Panamá

República Dominicana

Centro de Investigaciones, Universidad Nacional Pedro Henríquez Ureña, Santo Domingo, República Dominicana

Trinidad and Tobago

National Council for Technology and Development

Construction Industry Research and Development Programme (joint Caribbean Industrial Research Institute/Engineering Faculty, University of the West Indies/Government, Programme)

Venezuela

Oficina de Investigación y Difusión, Instituto Nacional de la Vivienda, Edif. Banco Obrero, Cruz Verde, Caracas, Venezuela

Instituto de Desarrollo Experimental de la Construcción, Universidad Central de Venezuela, Apdo. de Correos 59169, Caracas, Venezuela

/Instituto

Instituto de Materiales y Modelos Estructurales,
Universidad Central de Venezuela, Apdo. 50361,
Sabana Grande, Caracas 105, Venezuela

Instituto de Urbanismo, Universidad Central de Venezuela,
Ciudad Universitaria, Caracas, Venezuela

Oficina de Investigación y Construcción de Vivienda de
Interés Social, Banco Nacional de Ahorro y Préstamo, Avda.
Lincoln, esq. Los Jabillos, Sabana Grande, Caracas, Venezuela

Fundación para el Desarrollo de la Comunidad y Fomento
Municipal, Apdo. 50213, Caracas, Venezuela

Centro de Estudios del Desarrollo, Universidad Central de
Venezuela, Av. Neveri, Edif. Asovac, Colinas de Bello Monte,
Caracas, Venezuela

Consejo Nacional de Investigaciones Científicas y Tecnológicas
(CONICIT), Apdo. 70617, Los Ruices, Caracas, Venezuela

REGIONAL ENTITIES

Comité de Acción sobre Vivienda y Edificaciones de Interés
Social (CAVEIS), Junta Nacional de la Vivienda, Quito, Ecuador

- Forms part of the organization - Sistema Económico Latino-
americano (SEIA) - of which several countries in the wider
Caribbean area are members

Junta del Acuerdo de Cartagena, Casilla de Correo 3237,
Lima, Perú

- Two of Wider Caribbean Area countries are members - Venezuela
and Colombia. One important area of activity is technological
policy and development.

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TRAINING

Barbados

No information

Belize

No information

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No information

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El Salvador

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Guatemala

Facultad de Arquitectura, Universidad Nacional de San Carlos,
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Instituto Técnico de Capacitación y Productividad

- Training for construction activities. One programme, with
collaboration from UNDP/GUA/76/006, is aimed at training in
antisismic construction techniques

/Guyana

Guyana

University of Guyana

- Departments of Geography and Sociology

Honduras

Instituto Nacional de Formación Profesional, Boulevard Miraflores,
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- Middle level training and for construction workers

Jamaica

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Nicaragua

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República Dominicana

No information

Trinidad and Tobago

(See section 17, Regional Entities)

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Universidad Central de Venezuela, Apdo. 50361
Sabana Grande, Caracas 105, Venezuela

Instituto de Urbanismo, Universidad Central de Venezuela,
Ciudad Universitaria, Caracas, Venezuela

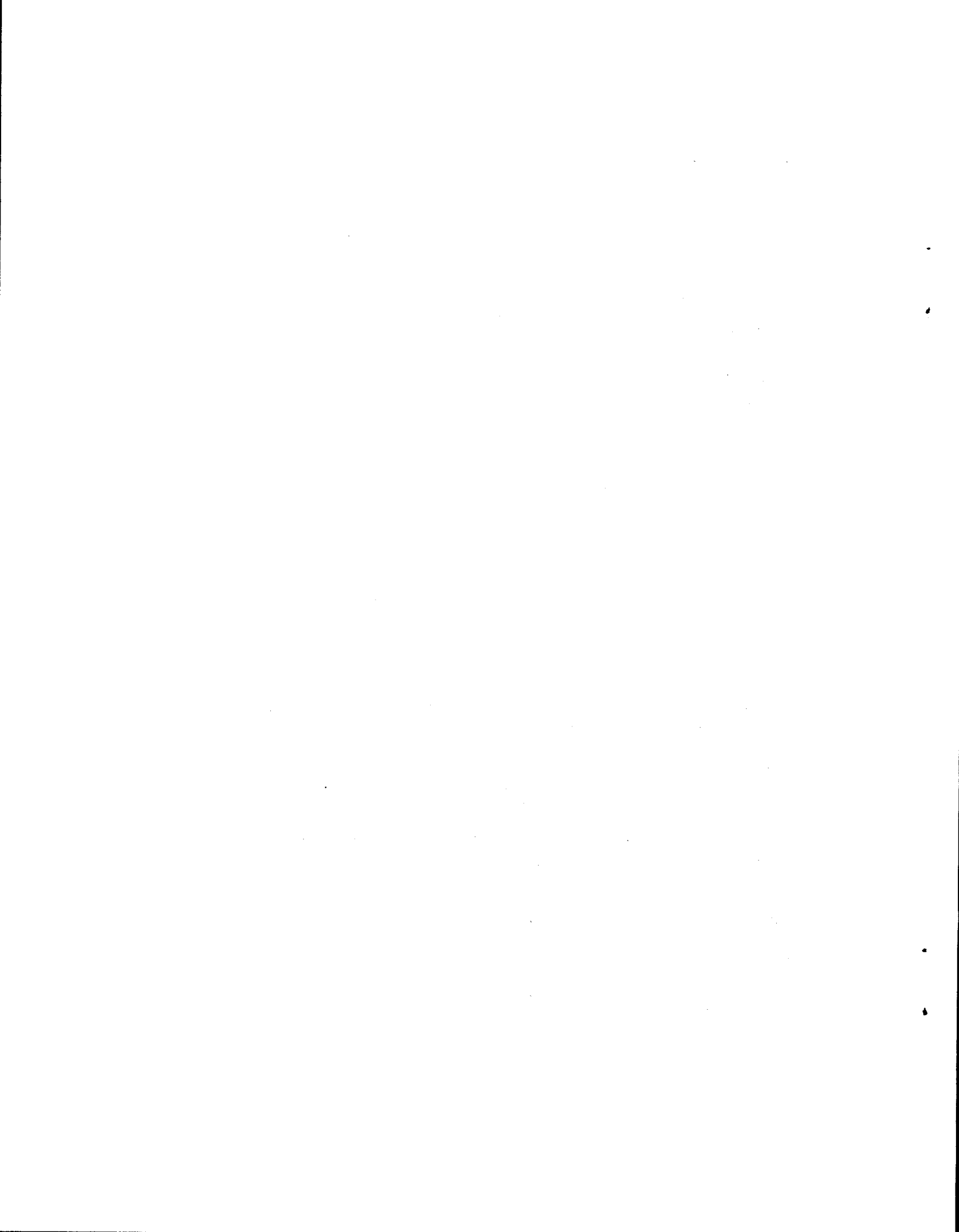
Centro de Estudios del Desarrollo,
Universidad Central de Venezuela, Av. Neveri, Edif. Asovac,
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Universidad Simón Bolívar, Carrera de Urbanismo,
Sartenejas, Caracas, Venezuela

Regional Entities

Engineering Faculty, University of the West Indies,
Trinidad and Tobago



TABLES AND MAPS

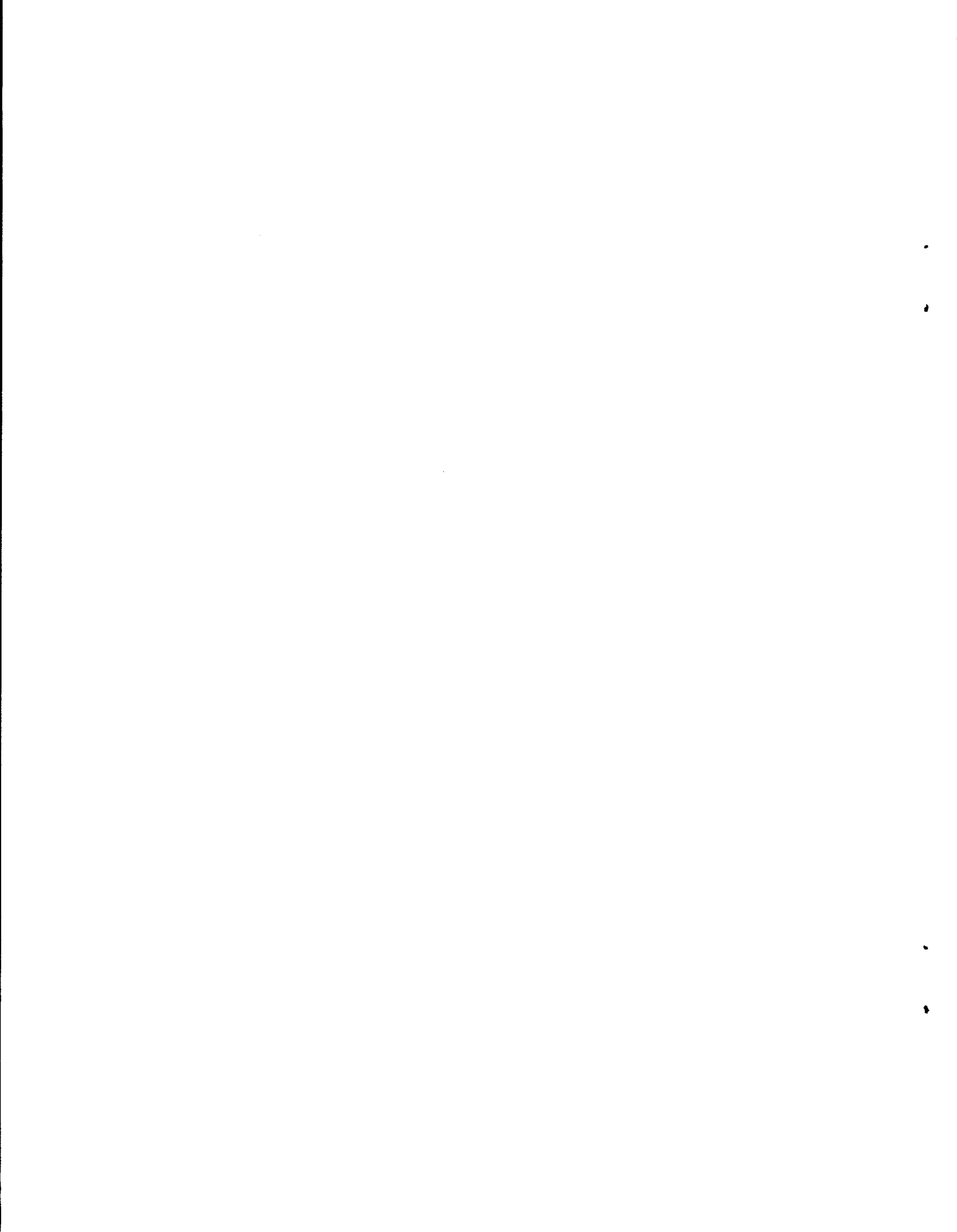


Table 1

CARIBBEAN BASIN: AREA, DENSITY AND PERCENTAGE CHANGE IN DENSITY^{a/}

	Area (km ²) b/		Population			Density		Percentage change in density, c/		
	1950	1970	1950	1960	1970	1950	1970	1950-1960	1960-1970	
						1950-1970	1950-1970			
Total	5 220 064	68 333 013	93 461 848	122 047 885	13.1	17.9	23.4	36.6	30.2	77.9
Central America	2 478 400	34 581 632	47 686 905	64 979 292	14.0	13.2	26.2	37.1	36.5	87.1
Belize	22 965	59 220	90 505	119 934	2.6	3.9	5.3	50.0	35.9	103.8
Costa Rica	50 900	800 875	1 336 274	1 971 780	15.7	26.3	31.9	67.5	39.9	134.4
El Salvador	20 935	1 855 917	2 510 984	3 540 260	88.7	119.0	169.5	35.2	41.4	91.1
Guatemala	108 880	2 760 868	4 237 997	5 175 400	25.6	39.4	47.5	53.9	20.6	35.5
Honduras	112 088	1 368 605	1 884 765	2 653 857	12.2	13.8	23.7	37.7	41.1	94.3
Mexico	1 967 183	25 791 017	34 923 129	48 225 238	13.1	17.8	24.5	35.9	37.6	87.0
Nicaragua	118 358	1 057 023	1 535 588	1 911 543	7.6	13.0	16.2	71.0	24.6	113.2
Panama	75 650	805 285	1 075 541	1 428 082	10.8	14.2	16.9	31.4	33.1	75.0
Canal Zone	1 432	52 822	42 122	44 198	36.9	29.4	30.0	-20.3	5.1	-16.3
North and North-east South America	2 506 953	17 170 898	25 976 629	32 941 027	6.8	10.3	13.1	51.5	27.2	92.6
Colombia	1 138 914	11 548 172	17 484 508	21 069 113	10.1	15.4	19.5	52.5	20.1	33.2
French Guiana	91 000	28 506	33 505	74 392	0.3	0.4	0.5	33.3	25.0	66.7
Guyana	214 969	375 701	560 406	744 000	1.7	2.6	3.3	52.9	26.9	94.1
Suriname	163 265	183 681	324 211	392 000	1.3	2.0	2.4	53.8	20.0	84.6
Venezuela	898 805	5 034 838	7 523 999	10 721 522	5.6	8.4	11.9	50.0	41.7	112.5

/continues

Table 1 (Conclusion)

	Area (km ²) b/		Population			Density		Percentage change in density c/			
			1950	1960	1970	1950	1960	1950-1960	1960-1970		
	234	711	16 585 483	19 848 314	24 127 566	70.6	84.6	102.6	19.8	21.5	45.6
Caribbean Islands											
Antigua d/	442		41 757	54 060	55 525	94.5	122.3	140.2	94.5	122.3	122.6
Bahamas e/	13 935		71 000e/	112 000	168 812	5.1	8.0	12.1	56.9	50.0	137.2
Barbados f/	431		192 800	232 820	238 141	447.3	540.2	552.5	20.8	2.3	23.5
Cayman Islands d/	250		6 410	8 511	10 430	24.7	32.9	46.4	33.2	22.8	63.6
Cuba f/	110 922		5 829 029	6 787 904	8 495 404	50.9	53.3	76.6	13.5	29.2	50.5
Dominica d/	751		47 624	59 916	69 549	63.4	79.8	92.6	25.9	16.0	46.1
Dominican Republic f/	48 734		2 135 872	3 047 070	4 006 405	44.1	62.9	82.7	42.6	31.5	87.5
Grenada d/	344		72 387	86 677	92 775	210.4	252.0	269.7	19.8	7.0	28.2
Guyana d/ e/	1 779		213 000e/	277 000	312 724	119.7	155.7	175.8	30.0	12.9	46.9
Haiti d/	27 670		3 097 220	3 629 942	4 314 628	110.1	129.1	155.9	17.3	20.8	41.6
British Virgin Islands	153		6 505	7 921	9 825	42.5	51.8	64.2	21.9	23.9	51.1
Jamaica f/	10 962		1 476 923	1 609 814	1 813 594	134.7	146.5	165.4	8.8	46.6	22.8
Martinique d/	1 102		239 130e/	292 594	320 030	217.0	265.5	290.4	22.4	9.4	33.8
Montserrat d/	98		14 333	12 167	11 458	146.3	124.2	116.9	-15.1	-5.9	-20.1
Netherlands Antilles d/	961		161 000	192 000	222 847	167.5	199.8	231.9	19.3	13.1	38.4
Puerto Rico f/	8 897		2 210 703	2 349 544	2 712 033	248.5	264.1	304.9	6.3	15.4	22.6
St. Kitts, Nevis, Anguilla d/	357		46 243	56 693	64 000	129.5	158.8	179.3	22.6	12.9	38.5
St. Lucia d/	616		70 113	86 108	99 806	113.8	139.8	162.0	22.8	15.9	42.4
St. Vincent d/	388		61 647	79 948	86 314	158.9	206.1	222.5	29.7	8.0	40.0
Trinidad and Tobago f/	5 128		557 970	827 957	945 210	108.8	161.5	184.3	48.4	14.1	69.4
Turks and Caicos Islands d/	438		6 817	5 368	5 558	15.6	12.9	12.7	-17.3	-1.6	-18.6
United States Virgin Islands	344		27 000e/	32 000	62 468	78.5	93.0	181.5	18.5	95.2	131.2

a/ The figures relate to censuses taken around the dates indicated.; b/ The area of the countries has been taken from: "América en cifras". Situación demográfica, 1974, pp. 3 and 4 ; c/ 1960 = 1950 x 100 ; d/ Jack Harewood, Caribbean Demography Workbook, Institute of Social and Economic Research, University of West Indies, 1950 St. Augustine, Trinidad.; e/ Estimates from the United States Department of Commerce, Bureau of the Census, 1976. World Population, 1975. The same source was used for 1970 ; f/ Boletín demográfico (CELADE, Santiago, Chile), año 4, No. 19, (January 1977).

Table 2

CARIBBEAN BASIN: PRIMARY ADMINISTRATIVE DIVISION, AREA, DENSITY AND PERCENTAGE CHANGE

Primary administrative division for some countries a/b/	Area		Population				Density		Percentage change					
	km ² c/	Percentage	1950		1970		1950	1970	1950-1970					
			Number	Percentage	Number	Percentage			1960	1970				
Total	1 095 386	45.0	11 946 660	36.6	16 066 705	35.7	21 366 979	34.9	4.7	6.3	8.4	34.0	33.3	78.7
Mexico	764 010	38.8	8 431 643	32.7	11 053 405	31.7	14 814 785	30.7	11.0	14.5	19.4	31.8	33.8	76.4
Campeche	50 952	2.6	122 086	0.5	168 219	0.5	251 556	0.5	2.4	3.0	4.9	25.0	63.3	104.2
Chiapas	74 415	3.7	906 947	3.5	1 210 870	3.5	1 569 053	3.3	12.2	16.3	21.1	33.6	29.4	73.0
Tabasco	25 337	1.3	362 701	1.4	496 340	1.4	768 327	1.6	14.3	19.6	30.3	37.1	54.6	111.9
Veracruz	71 896	3.7	2 040 313	7.9	2 727 899	7.8	3 815 423	7.9	28.4	37.9	53.1	33.5	40.1	87.0
Oaxaca	94 211	4.8	1 421 127	5.5	1 727 266	5.0	2 015 424	4.2	15.1	18.3	21.4	21.2	16.9	41.7
San Luis Potosi	63 241	3.2	656 024	3.3	1 048 297	3.0	1 281 996	2.7	13.5	16.6	20.3	23.0	22.3	50.4
Tamaulipas	79 602	4.0	717 925	2.8	1 024 182	2.9	1 456 853	3.0	9.0	12.9	18.3	43.3	41.9	103.3
Nuevo Leon	65 103	3.3	740 155	2.9	1 078 943	3.1	1 694 699	3.5	11.4	16.6	26.0	45.6	56.6	128.1
Coahuila	150 395	7.7	720 551	2.8	907 266	2.6	1 114 956	2.3	4.8	6.0	7.4	25.0	23.3	54.2
Quintana Roo	50 350	2.6	20 957	0.1	50 169	0.1	88 150	0.2	0.5	1.0	1.8	106.0	80.0	260.0
Yucatan	38 508	2.0	516 857	2.0	614 049	1.8	758 355	1.6	13.4	15.9	19.7	18.7	23.9	47.0
Guatemala	89 316	82.1	1 510 292	54.3	2 137 761	49.8	2 578 760	48.8	16.9	23.9	28.9	41.4	20.8	71.0
Poten	35 854	32.9	15 380	0.6	26 562	0.6	67 020	1.3	0.4	0.7	1.9	75.0	171.4	375.0
Alta Verapaz	8 566	8.0	189 812	6.8	260 498	6.1	279 830	5.4	21.9	30.0	32.2	37.0	7.3	47.0
Huehuetenango	7 400	6.8	200 101	7.2	288 088	6.7	363 360	7.0	27.0	33.9	49.1	44.1	26.2	81.9
Quiche	8 378	7.7	174 911	6.3	249 939	5.8	303 880	5.9	20.9	29.8	36.3	42.6	21.8	73.7
Baja Verapaz	3 124	2.9	66 313	2.4	96 485	2.3	106 440	2.1	21.2	30.9	34.1	45.8	11.3	60.8
Izabal	9 038	8.3	55 032	2.0	116 685	2.7	169 960	3.3	6.1	12.9	18.8	111.5	45.7	208.2
Zacapa	2 960	2.5	69 536	2.5	96 554	2.3	105 100	2.0	25.8	35.9	39.1	39.1	8.9	51.6
Chiquimula	2 376	2.2	112 841	4.0	149 752	3.5	161 980	3.1	47.5	63.0	68.2	32.6	8.3	43.6
El Progreso	1 922	1.8	47 872	1.7	65 582	1.5	72 840	1.4	24.9	34.1	37.9	36.9	11.1	52.2
Jalapa	2 063	1.9	75 190	2.7	99 153	2.3	119 960	2.3	36.4	48.1	58.1	32.1	20.6	59.6
Totonicapan	1 061	1.0	99 354	3.6	141 772	3.3	168 700	3.3	93.6	133.6	159.0	42.2	19.0	69.9
Jutiapa	3 219	2.9	138 925	5.0	194 774	4.5	234 580	4.5	43.2	60.5	72.9	40.0	20.5	66.8
Sacatepequez	465	0.4	60 124	2.2	80 942	1.9	99 160	1.9	129.3	174.1	213.2	34.6	22.5	64.9
Chimaltenango	1 979	1.8	121 480	4.3	163 153	3.8	197 760	3.8	61.4	82.4	99.9	34.2	21.2	62.7
Solola	1 061	1.0	82 921	3.0	107 822	2.5	128 190	2.5	78.2	101.6	120.8	29.9	18.9	54.5

Table 2 (Continuation)

Primary administrative division for some countries a/b/	Area		Population				Density		Percentage change			
	km ² c/	Percentage	1950		1960		1950	1960	1950-	1960-	1950-	1970
			Number	Percentage	Number	Percentage	Number	Percentage	1960	1970	1970	
Costa Rica	24 300	47.6	342 685	42.8	549 553	41.7	799 718	14.1	22.6	60.3	45.6	133.3
Alajuela	9 500	18.5	148 650	18.6	240 672	18.0	326 032	15.7	25.3	61.1	35.6	118.5
Heredia	2 900	5.7	51 760	6.4	85 063	6.4	133 844	17.8	29.3	64.6	57.7	159.6
Limon	9 300	18.3	41 360	5.7	68 385	5.1	115 143	4.4	7.4	63.2	67.6	181.8
Cartago	2 600	5.1	100 725	12.6	155 433	11.6	204 699	38.7	59.8	54.5	30.9	102.3
Panama	16 040	21.7	112 536	14.0	138 016	12.8	177 817	7.0	8.6	22.9	29.1	58.6
Bocas del Toro	8 630	11.0	22 392	2.8	32 600	3.0	43 531	2.6	3.8	46.2	31.6	92.3
Colon	7 410	9.9	90 144	11.2	105 416	9.8	134 296	12.2	14.2	16.4	27.5	48.4
Nicaragua	98 381	83.1	420 929	39.9	615 386	40.0	720 033	4.3	6.3	46.5	15.9	69.8
Zelaya	59 094	49.9	56 497	5.3	88 963	5.8	149 016	0.9	1.5	63.7	66.7	177.8
Jinotega	9 576	8.1	48 554	4.6	76 935	5.0	92 587	5.1	8.0	56.9	21.3	90.2
Matagalpa	6 794	5.7	135 401	12.8	171 465	11.1	173 758	19.9	25.2	26.6	1.6	28.6
Boaco	4 982	4.2	50 039	4.7	71 615	4.7	69 355	10.0	14.4	44.0	-3.5	39.0
Chontales	4 947	4.2	50 529	4.8	75 575	4.9	69 059	10.2	15.3	50.0	-8.5	37.3
Rio San Juan	7 448	6.3	9 089	0.9	15 676	1.0	21 159	1.2	2.1	75.0	33.3	133.3
Nueva Segovia	3 341	2.8	27 078	2.6	45 900	3.0	65 719	8.1	13.7	69.1	43.8	143.2
Esteli	2 199	1.9	43 742	4.1	69 257	4.5	79 400	19.9	31.5	58.3	14.6	81.4

/continues

Table 2 (Conclusion)

Primary administrative division for some countries a/b/	Area		1950		Population		Density		Percentage change d/		
	km ² c/	Percentage	1950		1970		1950	1970	1950-1970		
			Number	Percentage	Number	Percentage			1960	1970	
Honduras	102 979	91.9	1 128 565	82.5	1 572 584	83.4	2 275 846	11.0	15.3	39.1	44.4
Cortes	3 954	3.5	125 728	9.2	200 009	10.6	373 629	31.8	50.6	59.1	66.8
Santa Barbara	5 115	4.6	96 397	7.0	146 909	7.8	185 163	18.8	28.7	52.7	26.1
Copan	3 203	2.9	95 880	7.0	126 183	6.7	151 331	29.9	39.4	31.8	19.8
Ocotepaque	1 680	1.5	45 673	3.3	52 540	2.8	51 161	27.2	31.3	15.1	-2.6
Lempira	4 290	3.8	90 908	6.6	111 546	5.9	127 465	21.2	26.2	23.6	13.4
La Paz	2 331	2.1	51 220	3.7	60 600	3.2	65 390	22.0	26.0	18.2	8.1
Comayagua	5 196	4.6	68 171	5.0	96 442	5.1	135 455	13.1	19.6	42.0	40.3
Yoro	7 939	7.1	98 700	7.2	130 545	6.9	194 953	12.4	16.4	32.3	50.0
Atlantida	4 251	3.8	63 582	4.6	92 914	4.9	148 440	15.0	21.9	46.0	59.4
Colon	8 875	7.9	35 465	2.6	41 904	2.2	77 239	1.4	4.7	8.7	235.7
Olancho	24 351	21.7	83 910	6.1	110 744	5.9	151 923	3.4	4.5	6.2	32.4
Gracias a Dios	16 630	14.9	-	-	10 905	0.6	21 079	-	0.7	1.3	-
El Paraiso	7 218	6.4	82 572	6.0	106 823	5.7	140 840	11.4	14.8	29.8	31.8
Horazan	7 946	7.1	190 359	14.0	284 423	15.1	451 778	24.0	35.8	49.2	58.9

a/ Of those divisions all or most of the area of which drains towards the Caribbean.

b/ The countries not covered in this table by primary administrative division were considered as a whole, on the basis of table 1 (Belize, Colombia, Venezuela, El Salvador, Guyana, Suriname, French Guiana and the Canal Zone).

c/ Taken from population censuses.

d/ $\frac{1960 - 1950}{1950} \times 100$.

Table 3

CARIBBEAN BASIN: SUMMARY OF TABLES 1 AND 2

	Area km ²		Population		Density		Percentage change in density		Annual average percentage change in density				
	1950	1970	1950	1970	1950	1970	1950-	1950-	1950-	1950-			
							1960	1970	1960	1970			
I. HAWAIIAN SECTOR													
<u>Whole countries or territories</u>													
Belize	22 965	59 220	90 505	120 936	-2.6	3.9	5.3	50.0	35.9	103.6	5.0	3.6	5.2
El Salvador	20 935	1 355 917	2 510 904	3 549 260	66.7	119.9	169.5	35.2	41.4	91.1	3.5	4.1	4.6
Canal Zone	1 482	52 822	42 122	44 198	36.9	29.4	30.9	-20.3	5.1	-16.3	-2.0	0.5	-0.0
Colombia	1 139 914	11 548 172	17 404 508	21 069 113	10.1	15.4	18.5	52.5	20.1	83.2	5.3	2.0	4.2
Venezuela	998 895	5 034 038	7 523 999	10 721 522	5.6	8.4	11.9	56.0	41.7	112.5	5.0	4.2	5.6
Guyana	214 969	375 701	560 406	714 000	1.7	2.6	3.3	52.9	26.9	94.1	5.3	2.7	4.7
Suriname	163 265	183 681	324 211	392 000	1.3	2.0	2.4	53.8	20.0	84.6	5.4	2.0	4.2
French Guiana	91 000	28 506	33 505	44 392	0.3	0.4	0.5	33.3	25.0	66.7	3.3	2.5	3.3
Total	2 552 285	19 130 957	28 579 240	36 655 421	7.5	11.2	14.4	49.3	26.6	92.0	4.9	2.9	4.6
Parts of countries	1 252 140	12 249 269	16 029 200	22 133 000	5.0	6.8	9.1	36.0	33.8	82.0	3.6	3.4	4.1
II. ISLAND SECTOR													
Percentage of the overall total (Table 1)	234 711	16 429 614	19 047 027	23 614 007	70.0	84.6	101.5	20.9	20.0	45.0	2.1	2.0	2.3
GRAND TOTAL	4 039 136	47 817 740	65 047 347	52 603 228	11.8	16.1	20.5	36.4	27.3	73.7	3.6	2.7	3.7
	77.4	70.1	69.6	67.8									

Table 4

CARIBBEAN BASIN: ANNUAL RATES OF GROWTH IN THE TOTAL POPULATION 1950-1975, TOTAL POPULATION AND GROWTH RATES 1975-2000 AND FIVE-YEAR PROJECTIONS 1975-2000

	Annual growth rates (%)					Total population and annual average growth rate					Rates (Percentage)					
	1950-1955	1960-1965	1965-1970	1970-1975	1975-1980	1980-1985	1985-1990	1990-1995	1995-2000	1980	1985	1990	1995	2000		
Caribbean Islands					27 959 30 603 33 462 36 539 39 799 43 128					1.81	1.79	1.76	1.71	1.61		
Antigua	2.11	1.91	2.07	2.75	0.84	73	75	78	80	83	85	0.54	0.78	0.51	0.74	0.48
Bahamas	2.83	4.33	4.71	4.27	2.74	203	229	257	280	303	330	2.41	2.31	1.71	1.59	1.71
Barbados	0.93	0.89	0.34	0.34	0.50	245	253	263	274	286	297	0.64	0.78	0.82	0.96	0.75
British Virgin Islands	0	0	5.03	2.11	1.91	11	13	15	16	18	19	3.34	2.86	1.29	2.36	1.08
Cayman Islands	0	2.67	2.36	4.01	0	11	12	12	12	13	13	1.74	0	0	1.60	0.0
Cuba	1.85	1.79	2.11	1.87	1.70	9 340	9 978	10 654	11 384	12 724	132	1.31	1.33	1.33	1.21	1.02
Dominica	2.22	1.33	1.60	1.77	1.10	95	99	95	88	90	91	1.37	1.17	0.63	0.45	0.15
Dominican Republic	3.93	3.41	3.36	3.20	2.91	5 232	5 946	6 715	7 536	8 425	9 340	2.56	2.43	2.31	2.23	2.06
Grenada	2.24	1.14	0.44	0.43	0.42	96	96	100	102	104	106	0.41	0.40	0.40	0.39	0.30
Guadeloupe	2.42	2.03	2.54	1.13	-0.18	325	334	346	359	370	381	0.55	0.71	0.74	0.69	0.59
Haiti	1.73	1.96	2.12	2.15	2.27	5 163	5 917	6 595	7 520	8 609	9 676	2.39	2.51	2.63	2.70	2.75
Jamaica	1.69	1.10	1.55	1.20	1.76	2 043	2 192	2 361	2 536	2 709	2 871	1.41	1.49	1.43	1.32	1.16
Martinique	2.13	2.93	1.42	1.63	-0.49	325	327	335	344	352	359	0.12	0.46	0.53	0.46	0.30
Montserrat	-1.46	-1.69	0.3	6.0	1.60	13	13	13	14	14	14	0.0	0.0	1.48	0.0	0.0
Netherlands Antilles	1.66	1.74	1.60	1.30	1.64	741	266	296	330	362	339	1.07	2.27	2.04	1.95	1.44
Puerto Rico	0.29	0.94	1.91	0.93	2.71	3 113	3 436	3 724	3 976	4 203	4 406	1.99	1.60	1.31	1.11	0.94
St. Kitts, Nevis, Anguilla	1.57	1.66	1.36	1.27	0.31	66	67	67	66	69	73	0.30	0.0	0.20	0.29	0.29
St. Lucia	1.93	1.55	3.42	1.02	1.42	108	115	123	127	131	131	1.21	1.31	0.56	0.70	0.0
St. Vincent	1.72	1.03	0.96	0.93	1.11	93	96	102	106	106	110	1.01	0.66	0.65	0.45	0.37
Trinidad and Tobago	2.51	3.08	2.94	1.06	1.04	1 062	1 139	1 196	1 260	1 322	1 377	1.03	1.01	1.01	0.95	0.62
Turks and Caicos Islands	0	0	0	0	0	6	6	6	6	6	6	0	0	0	0	0
United States Virgin Islands	0.73	2.67	9.71	3.04	6.21	95	107	115	122	123	133	2.36	1.44	1.18	0.96	0.77

/continues

Table 4 (Conclusion)

	Annual growth rates (%)					Total population and annual average growth rate					Rates (Percentages)					
	1950-1955	1955-1960	1960-1965	1965-1970	1970-1975	1975	1980	1985	1990	1995	2000	1980	1985	1990	1995	2000
I. Central America	3.00	3.19	3.25	3.17	3.19	76 057	92 806	109 235	126 065	149 072	172 390	3.26	3.26	3.10	3.34	2.91
Belize	3.04	3.30	2.63	2.48	3.11	140 000	182 000	184 000	205 000	225 000	234 000	2.90	2.53	2.17	1.69	0.95
Costa Rica	3.54	3.76	3.63	3.12	2.52	1 965 000	2 213 000	2 485 000	2 776 000	3 075 000	3 377 000	2.38	2.32	2.21	2.05	1.87
El Salvador	2.69	2.98	3.10	3.51	2.91	4 145 000	4 801 000	5 557 000	6 489 000	7 536 000	8 713 000	2.94	2.92	3.10	2.99	2.90
Guatemala	2.29	2.94	3.04	2.98	3.08	6 243 000	7 262 000	8 493 000	9 676 000	111 109 000	12 739 000	3.02	2.92	2.82	2.76	2.74
Honduras	3.19	3.34	3.40	2.74	3.18	4 095 000	3 693 000	4 374 000	5 197 000	5 955 000	6 931 000	3.53	3.38	3.10	3.07	3.18
Mexico	3.03	3.23	3.29	3.21	3.26	59 226 000	69 994 000	82 839 000	97 628 000	114 107 000	132 305 000	3.34	3.37	3.29	3.12	2.96
Nicaragua	2.05	2.62	2.90	2.94	3.26	2 332 000	2 737 000	3 223 000	3 784 000	4 426 000	5 161 000	3.29	3.27	3.21	3.14	3.06
Panama	2.77	2.90	2.94	2.87	2.72	1 676 000	1 697 000	2 118 000	2 347 000	2 565 000	2 825 000	2.45	2.20	2.05	1.93	1.78
Canal Zone	-1.46	-2.16	0	2.16	2.05	43 000	47 000	52 000	53 000	54 000	55 000	1.61	1.97	0.38	0.41	0.33
II. North and North-east																
South America	2.96	3.17	3.20	2.80	2.29	23 647 000	26 907 000	30 444 000	34 315 000	38 331 000	42 469 000	2.41	2.47	2.39	2.21	2.05
Columbia	2.97	2.56	4.34	4.37	3.32	60 000	71 000	82 000	94 000	106 000	118 000	3.27	3.01	2.70	2.41	2.10
French Guiana	2.78	2.83	2.45	2.27	2.19	791 000	884 000	984 000	1 080 000	1 172 000	1 257 000	2.22	2.14	1.86	1.64	1.40
Guyana	3.02	2.97	2.71	2.22	2.58	422 000	492 000	584 000	689 000	796 000	905 000	3.07	3.43	3.31	2.94	2.49
Suriname	3.43	4.44	3.56	3.21	3.35	12 653 000	14 914 000	17 461 000	20 187 000	22 954 000	25 676 000	3.29	3.15	2.90	2.57	2.24
Venezuela																

Source: United Nations. Demographic estimates and projections for the World Regions and Countries as Assessed in 1976. Prepared by the Population Division and Social Affairs. Provisional Report. 25 January 1979.

Table 5

CARIBBEAN BASIN: EVOLUTION OF THE POPULATION IN LOCALITIES OF 20 000 INHABITANTS AND OVER ACCORDING TO CENSUS DATA

	Total population			Population in localities with 20 000 inhabitants and over						Growth rate in the total population (%)			Growth rates in localities which in 1979 contained 20 000 inhabitants and over (%)		
	1950	1960	1970	1950	1960	1970	1950	1960	1970	1950	1960	1970	1950	1960	1970
				(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
Caribbean Islands	16 585 483	19 848 314	24 127 566	3 438 138	20.7	4 792 574	24.1	7 298 211	30.2	1.84	1.97	1.89	3.38	4.30	3.84
Antigua	41 757	54 060	65 525	"	"	21 396 ^{b/}	"	21 814	33.3	2.62	1.94	2.23	"	0.19	"
Bahamas	71 000	112 000	168 812	36 243 ^{c/}	51.0	80 907 ^{b/}	113.7	101 502	60.2	4.66	4.19	4.33	8.36	2.29	5.28
Barbados	192 800	232 820	238 141	76 437	39.7	82 264	35.3	88 000	37.0	1.36	0.23	0.88	0.53	-0.68	0.59
Cayman ^{a/}	6 410	8 511	10 460	"	"	"	"	"	"	2.88	2.08	2.48	"	"	"
Cuba	5 829 029	6 787 904	8 495 404	2 102 309	36.1	2 642 166	38.9	3 684 707	43.4	2.07	2.23	2.16	2.67	3.01	2.87
Dominica ^{a/}	47 624	59 916	69 549	"	"	"	"	"	"	2.32	1.58	1.91	"	"	"
Dominican Republic	2 135 872	3 047 070	4 036 405	238 111	11.2	568 700	18.7	1 208 545	40.2	3.62	2.95	3.30	5.96	6.25	6.10
Granada	72 387	86 677	92 775	"	"	"	"	"	"	1.82	0.68	1.25	"	"	"
Guadeloupe	213 000	277 060	312 724	26 160	12.3	58 805	21.2	69 433	22.2	2.66	1.22	1.94	8.44	1.68	5.00
Haiti	3 097 220	3 629 942	4 314 628	158 540	5.1	271 056	7.5	546 350	12.7	1.59	1.58	1.59	5.23	5.94	5.58
British Virgin Islands ^{a/}	6 505	7 921	9 825	"	"	"	"	"	"	1.99	2.18	2.08	"	"	"
United States Virgin I ^{a/}	27 000	32 000	62 468	"	"	"	"	"	"	1.71	6.92	4.20	"	"	"
Jamaica	1 476 923	1 609 814	1 813 594	110 000	7.5	147 000	9.0	222 500	12.3	1.36	1.20	1.26	3.68	2.38	2.69
Martinique ^{a/}	239 130	292 594	320 030	60 648	25.3	85 281	29.1	96 943	30.3	2.04	0.90	1.47	3.47	1.29	2.37
Montserrat ^{a/}	14 333	12 167	11 458	"	"	"	"	"	"	-1.65	-0.60	-1.13	"	"	"
Netherlands Antilles	161 000	192 000	222 847	40 597 ^{a/}	25.2	43 546	19.5	"	"	1.78	1.50	1.64	0.70	"	"
Puerto Rico	2 210 703	2 349 544	2 712 033	465 792	21.1	657 653	28.0	1 135 053	41.9	0.61	1.45	1.03	3.27	4.34	3.00
St. Kitts ^{a/} Nevis Anguilla ^{a/}	46 243	56 693	64 000	"	"	"	"	"	"	2.96	1.22	1.64	"	"	"
St. Lucia ^{a/}	70 113	86 108	99 806	"	"	"	"	"	"	2.08	1.49	1.78	"	"	"
St. Vincent ^{a/}	61 647	79 948	86 314	"	"	"	"	"	"	2.63	0.77	1.70	"	"	"
Trinidad and Tobago	557 900	827 957	945 210	123 300	22.1	133 800	16.2	123 363	13.1	2.86	1.33	2.22	0.59	-0.82	1.00
Turks and Caicos Islands ^{a/}	6 817	5 668	5 558	"	"	"	"	"	"	-1.86	-0.20	-1.03	"	"	"

/ continues

Table 5 (Conclusion)

	Total population		Population in localities with 20 000 inhabitants and over				Growth rate in the total population (%)				Growth rates in localities which in 1970 contained 20 000 inhabitants and over (%)				
	1950	1960	1970	1950	1960	1970	1950	1960	1970	1950	1960	1970	1950	1960	1970
	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
Central America	34 587 632	47 686 905	64 979 292	7 229 455	20.9	12 477 392	26.2	20 762 415	32.0	3.27	3.14	3.20	5.61	5.22	5.42
Belize	59 220	90 505	119 934	21 886	37.0	32 867	36.3	39 000	32.5	3.08	2.86	2.98	4.15	1.72	2.44
Costa Rica	800 875	1 336 274	1 871 780	141 857	17.7	325 785	24.4	504 672	27.0	4.06	3.39	3.77	4.25	3.31	3.83
El Salvador	1 855 917	2 510 984	3 549 260	240 355	13.0	443 397	17.7	726 074	20.5	2.82	3.47	3.01	4.10	4.14	4.12
Guatemala	2 790 868	4 287 997	5 175 400	311 948	11.2	664 232	15.5	832 613	16.1	3.12	2.13	2.73	4.94	2.25	3.08
Honduras	1 368 605	1 894 765	2 653 857	93 524	6.8	217 570	11.5	536 104	20.2	3.00	2.69	2.83	5.88	5.79	5.87
Mexico	25 791 017	34 923 129	48 225 238	6 078 876	23.5	10 083 633	28.9	16 989 547	35.2	3.08	3.41	3.24	4.44	4.61	4.52
Nicaragua	1 057 023	1 535 588	1 911 543	160 931	15.2	353 946	23.1	591 916	31.0	2.94	2.79	2.88	4.87	5.65	5.17
Panama	805 285	1 075 541	1 428 082	180 078	22.4	355 962	33.1	562 489	39.4	2.94	3.06	3.00	6.15	4.56	5.32
Canal Zone	52 822	42 122	44 198	-	-	-	-	-	-	-2.24	0.48	-0.39	-	-	-
North and North-east South America	17 170 898	25 926 629	32 941 027	4 291 565	25.0	10 110 994	39.0	16 409 994	49.8	4.21	2.42	3.31	8.94	4.96	5.23
Colombia	11 548 172	17 484 508	21 069 113	2 659 119	23.0	6 393 632	36.6	9 737 000	46.2	3.20	2.03	2.71	6.12	4.05	5.30
Venezuela	5 034 838	7 523 999	10 721 522	1 561 109	31.0	3 536 306	47.0	6 363 994	59.4	4.00	3.37	3.68	6.75	4.93	5.82
Guyana	375 701	560 406	714 000	-	-	70 169	12.5	187 000	26.2	2.90	2.45	2.71	-	10.20	-
Suriname	183 681	324 211	392 000	74 337	40.5	110 867	34.2	102 000	26.0	4.33	3.08	3.93	3.03	-1.34	1.62
French Guiana	28 506	33 505	44 392	-	-	-	-	20 000	45.1	2.25	4.78	3.39	-	-	-
Caribbean Islands	16 585 483	19 848 314	24 127 566	7 229 455	20.7	12 477 392	24.1	20 762 415	30.2	1.81	1.97	1.89	3.38	4.30	3.84
Central America North and North-east South America	34 581 632	47 686 905	64 979 292	3 438 138	20.9	47 925 740	25.2	7 298 211	32.0	3.27	3.14	3.20	5.61	5.22	5.42
Total	17 170 898	25 926 629	32 941 027	11 291 565	25.0	10 110 994	39.0	16 409 994	49.8	4.21	2.42	3.31	8.94	4.96	6.93
	68 338 013	93 461 848	122 047 885	14 959 158	21.8	27 380 960	29.3	44 470 620	36.4	3.13	2.67	2.90	6.04	4.85	5.45

Source: Boletín Demográfico (CELADE, Santiago, Chile), año X, No. 19 (enero de 1977), and tables 2 and 3, pp. 12 and 13.

a/ Demographic Yearbook 1976 and Demographic Yearbook 1977 (United Nations publications, Sales Nos. E/F.76.XIII.61 and E/F.78.XIII.61).

b/ Demographic Yearbook 1965 (United Nations publication, Sales No. 66.XIII.61).

c/ Demographic Yearbook 1955 (United Nations publication, Sales No. 1955.XIII.66).

d/ Demographic Yearbook 1952 and Demographic Yearbook 1960 (United Nations publications, Sales Nos. 1953.XIII.61 and 61.XIII.61).

e/ Demographic Yearbook 1970 (United Nations publication, Sales No. E/F.70.XIII.61).

EVOLUTION OF THE POPULATION IN LOCALITIES OF 20 000 INHABITANTS AND OVER ACCORDING TO CENSUS DATA

	Total population			Population in localities with 20 000 inhabitants and over			Growth rate in the total population (%)			Growth rates in localities which in 1970 contained 20 000 inhabitants and over (%)																							
	1950	(%)	1960	(%)	1970	(%)	1950	(%)	1960	(%)	1970	(%)	1950	(%)	1960	(%)	1970	(%)															
Mexico																																	
Campeche	122 086		168 219		251 556		31 279		25.6	65 038		38.7		104 162		41.4		3.26	4.27	3.75		4.26		5.01		4.63							
Chiapas	906 947		1 210 870		1 569 043		58 287		6.4	106 165		8.0		198 044		12.6		2.93	2.73	2.83		3.48		4.28		3.87							
Tabasco	362 701		496 340		768 327		33 587		9.3	52 262		10.5		99 565		13.0		3.19	4.64	3.90		4.52		6.92		5.63							
Veracruz	2 040 313		2 727 899		3 815 422		273 324		13.4	444 272		16.3		977 941		25.6		2.95	3.55	3.24		3.80		6.37		5.05							
Oaxaca	1 421 127		1 727 266		2 015 424		46 741		3.3	72 370		4.2		151 757		7.5		1.97	1.62	1.00		4.52		3.68		4.11							
San Luis Potosí	856 024		1 048 297		1 281 996		125 640		14.7	183 803		17.5		306 425		23.9		2.05	2.11	2.08		2.82		4.33		3.56							
Tamaulipas	717 925		1 024 182		1 456 888		325 997		45.4	508 973		49.7		868 575		59.6		3.61	3.73	3.67		4.76		5.34		5.03							
Nuevo León	740 155		1 078 848		1 694 689		333 422		45.0	623 959		57.8		984 199		58.1		3.84	4.80	4.31		6.06		4.23		5.16							
Coahuila	720 551		907 734		1 114 956		256 048		35.5	447 177		49.3		641 548		57.5		2.34	2.16	2.25		3.88		3.11		3.50							
Quintana Roo	26 957		501 690		88 150		--		--	--		--		23 685		26.9		6.40	6.03	6.22		5.90		6.55		6.22							
Yucatan	576 857		614 049		758 355		142 838		27.6	170 834		22.8		212 097		28.0		1.74	2.22	1.97		1.81		1.27		2.03							
Total	8 431 643	32.7	11 053 405	31.7	14 314 785	30.7	1 627 163	23.8	2 674 853	22.8	4 567 993	23.3	3.08	3.41	3.24	4.44	4.61																
Guatemala																																	
Petén	15 880		26 562		67 020		--		--	--		--		--		--		3.74	10.92	6.48		--			--		--						
Alta Verapaz	189 812		260 498		279 880		--		--	--		--		--		--		2.29	0.81	1.70		--			--		--						
Huehuetenango	200 101		288 088		363 380		--		--	--		--		--		--		2.64	2.63	2.64		--			--		--						
Quiché	174 911		249 939		303 890		--		--	--		--		--		--		2.58	2.21	2.44		--			--		--						
Baja Verapaz	66 313		96 485		106 440		--		--	--		--		--		--		2.71	1.11	2.09		--			--		--						
Izabal	55 032		116 685		169 960		--		--	--		--		--		--		5.51	4.30	5.04		--			--		--						
Zacapa	69 536		96 554		105 100		--		--	--		--		--		--		2.37	0.95	1.82		--			--		--						
Chiquimula	112 841		149 752		161 900		--		--	--		--		--		--		2.04	0.88	1.59		--			--		--						
El Progreso	47 872		65 582		72 840		--		--	--		--		--		--		2.27	1.13	1.85		--			--		--						
Jalapa	75 190		99 153		119 960		--		--	--		--		--		--		2.00	2.16	2.06		--			--		--						
Totonicapán	99 354		141 772		166 700		--		--	--		--		--		--		2.57	1.97	2.34		--			--		--						
Jutiapa	139 925		194 774		234 530		--		--	--		--		--		--		2.44	2.10	2.31		--			--		--						
Sacatepequez	60 124		80 942		99 160		--		--	--		--		--		--		2.15	2.30	2.21		--			--		--						
Chimaltenango	121 480		163 153		197 730		--		--	--		--		--		--		2.13	2.18	2.15		--			--		--						
Solola	82 921		107 822		128 120		--		--	--		--		--		--		1.89	1.95	1.92		--			--		--						
Total	1 510 292	54.3	2 137 761	49.9	2 578 730	49.8	--		--	1.04%	--	--		0.9%	--	--		3.54	1.89	2.71		--			--		0.14						

Table 6 (Continuation)

	Total population		Population in localities with 20 000 inhabitants and over				Growth rate in the total population (%)				Growth rates in localities which in 1970 contained 20 000 inhabitants and over (%)							
			1960		1970		1950-1960		1960-1970		1950-1960		1960-1970					
	(%)		(%)		(%)		(%)		(%)		(%)		(%)					
Costa Rica	148 850	18.6	240 672	18.0	326 032	17.4	--	24 224	10.1	33 122	10.2	3.81	3.05	3.47	4.41	3.14	3.85	
Alajuela	51 760	6.4	85 063	6.4	133 844	7.2	--	--	--	22 700	17.0	3.94	4.50	4.22	3.77	1.64	2.83	
Heredia	41 360	5.2	68 385	5.1	115 143	6.2	--	29 039	42.5	40 830	35.5	3.99	5.28	4.56	4.55	3.42	4.65	
Limón	100 725	12.6	155 433	11.6	204 699	10.9	--	--	--	21 753	10.6	3.43	2.76	3.14	2.64	1.84	2.29	
Cartago	342 685	42.7	549 553	41.1	799 718	41.7	--	53 263	9.7	118 405	14.8	3.84	3.82	4.33	--	8.32	--	
Panama	22 392	2.8	32 600	3.0	43 531	3.0	--	--	--	--	--	3.83	3.12	3.48	--	--	--	
Bocas del Toro	90 144	11.2	105 416	9.8	134 286	9.4	52 234	59 598	56.5	67 695	50.4	1.58	2.61	2.07	1.33	1.36	1.35	
Colón	112 536	14.0	138 016	12.8	177 817	12.4	42 204	59 598	43.2	67 695	38.1	2.06	2.57	2.31	1.33	1.36	1.35	
Nicaragua	56 497	5.3	88 963	5.8	149 016	7.8	--	--	--	--	--	1.46	6.70	3.43	--	--	--	
Zelaya	48 554	4.6	76 935	5.0	92 567	4.8	--	--	--	--	--	3.68	2.35	3.14	--	--	--	
Jinotega	135 401	12.8	171 485	11.1	173 758	9.1	--	21 385	--	21 385	12.3	1.85	0.17	1.20	2.06	4.52	3.55	
Matagalpa	50 529	4.8	75 575	4.7	69 059	3.6	--	--	--	--	--	3.17	-1.13	1.51	--	--	--	
Chontales	50 039	4.7	71 615	4.9	69 355	3.6	--	--	--	--	--	2.88	-0.40	1.58	--	--	--	
Boaco	9 089	0.9	15 676	1.0	21 159	1.1	--	--	--	--	--	4.32	3.84	4.14	--	--	--	
Río San Juan	27 078	2.6	45 900	3.0	65 719	3.4	--	--	--	--	--	4.18	4.62	4.35	--	--	--	
Nueva Segovia	43 742	4.1	69 257	4.5	79 400	4.2	--	--	--	20 222	25.5	3.63	1.73	2.90	6.65	6.20	6.38	
Estelí	420 929	39.9	615 386	40.0	720 033	37.6	--	--	--	41 607	5.8	3.87	1.58	2.72	--	--	--	
Total																		

/continues

Table 6 (Conclusion)

	Total population			Population in localities with 20 000 inhabitants and over			Growth rate in the total population (%)			Growth rates in localities which in 1970 contained 20 000 inhabitants and over (%)								
	1950	(%)	1960	(%)	1970	(%)	1950-1960	1960-1970	1950-1970	1950-1960	1960-1970	1950-1970						
Honduras																		
Cortes	125 728	9.2	200 009	10.6	373 629	14.1	21 139	16.8	58 632	29.3	173 743	46.5	4.39	4.97	4.70	7.73	6.67	7.21
Santa Barbara	96 397	7.0	146 909	7.8	185 163	7.0	--	--	--	--	--	--	3.97	1.81	2.79	--	--	--
Copan	95 880	7.0	126 183	7.7	151 331	5.7	--	--	--	--	--	--	2.57	1.42	1.95	--	--	--
Ocotepaque	45 673	3.3	52 540	2.8	51 161	1.9	--	--	--	--	--	--	1.30	-0.21	0.48	--	--	--
Lempera	90 908	6.6	111 546	5.9	127 465	4.8	--	--	--	--	--	--	1.91	1.04	1.44	--	--	--
La Paz	51 220	3.7	60 600	3.2	65 390	2.5	--	--	--	--	--	--	1.57	0.59	1.04	--	--	--
Comayagua	68 171	5.0	96 442	5.1	135 455	5.1	--	--	--	--	--	--	3.26	2.67	2.94	--	--	--
Yaro	98 700	7.2	130 545	6.9	194 953	7.3	--	--	--	--	--	--	2.62	3.17	2.91	--	--	--
Atlantida	63 582	4.6	92 914	4.9	148 440	5.6	--	24 863	26.8	28 014	14.4	14.4	3.57	3.71	3.64	3.80	5.66	4.83
Colon ^{a/}	35 465	2.6	41 904	2.2	77 239	2.9	--	--	--	38 582	25.9	25.9	3.75	4.95	4.40	3.72	3.48	3.51
Olancho	83 910	6.1	110 744	5.9	151 923	5.7	--	--	--	--	--	--	2.60	2.49	2.54	--	--	--
Gracias a Dios ^{a/}	--	--	10 905	0.6	21 079	0.8	--	--	--	--	--	--	--	--	--	--	--	--
El Paraiso	82 572	6.0	106 823	5.7	140 840	5.3	--	--	--	270 645	22.5	22.5	2.41	2.17	2.28	--	--	--
Merazan	190 359	14.0	284 428	15.1	451 778	17.0	72 385	134 075	13.8	510 984	22.5	22.5	3.78	3.66	3.72	5.76	5.61	5.72
Total	128 565	82.5	1 572 584	83.4	2 275 846	85.7	93 524	217 570	8.3	270 645	22.5	22.5	--	--	--	--	--	--
Central America (in part)																		
Mexico	8 431 643		11 053 405		14 814 785		1 627 163	2 674 853		4 567 999			2.74	2.97	2.86	5.10	5.50	5.30
Guatemala	1 510 292		2 137 761		2 578 780		--	22 327		22 598			3.54	1.89	2.71	--	0.12	--
Costa Rica	342 695		549 553		799 718		--	53 263		118 405			4.84	3.82	4.33	--	8.32	--
Panama	112 536		138 016		177 817		52 204	59 598		67 695			2.06	2.57	2.31	1.33	1.28	1.31
Nicaragua	420 929		615 386		720 033		--	--		41 607			3.87	1.58	2.72	--	--	--
Honduras	1 128 565		1 572 584		2 275 846		93 524	217 570		510 984			3.37	3.77	3.57	8.81	8.91	8.86
Total	11 946 660		16 066 705		21 366 979		1 772 891	3 027 611		5 329 288								
Percentage of Central America total	36.6		35.7		34.9		24.5	24.3		25.7								

^{a/} For the purpose of comparison, the calculation includes the population rates for Gracias a Dios, which was separated from Colon in 1961.

Table 7

CARIBBEAN BASIN: EVOLUTION OF THE POPULATION IN LOCALITIES WITH 20 000 INHABITANTS AND OVER ACCORDING TO CENSUS DATA

	1950			1960			1970			Percentage			Percentage increase			
	1950			1960			1970			1960			1950-1970			
	Localities	Population	Localities	Population	Localities	Population	Localities	Population	Localities	Population	Localities	Population	Localities	Population		
CENTRAL AMERICA																
Costa Rica																
20 000 and over	1	141 857	4	325 785	6	504 672	100.0	100.0	100.0	100.0	100.0	100.0	100.0	500.0	255.0	
1 000 000 and over	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
500 000 - 999 999	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
100 000 - 499 999	1	141 857	1	246 440	1	359 327	100.0	100.0	75.6	16.7	71.2	0.0	153.3	-	-	
50 000 - 99 999	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20 000 - 49 999	-	-	3	79 345	5	145 345	-	75.0	24.4	83.3	28.8	-	-	-	-	
El Salvador																
20 000 and over	3	240 355	6	443 397	10	726 074	100.0	100.0	100.0	100.0	100.0	100.0	100.0	233.3	002.1	
100 000 and over	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
500 000 - 999 999	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
100 000 - 499 999	1	161 951	1	255 744	1	377 171	33.3	64.4	57.7	16.7	51.9	0.0	132.9	-	-	
50 000 - 99 999	1	51 702	1	72 839	3	210 526	33.3	21.5	16.4	16.7	29.0	200.0	307.2	-	-	
20 000 - 49 999	1	26 702	4	114 814	6	178 377	33.3	11.1	25.9	66.6	24.6	55.4	568.0	-	-	
Guatemala																
20 000 and over	2	311 948	4	664 232	5	832 613	100.0	100.0	100.0	100.0	100.0	100.0	100.0	150.0	166.9	
100 000 and over	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
500 000 - 999 999	-	-	1	572 671	1	700 504	-	25.0	86.2	20.0	84.1	-	-	-	-	
100 000 - 499 999	1	284 276	-	-	-	-	50.0	91.1	-	-	-	-	-	-	-	
50 000 - 99 999	-	-	-	-	1	53 021	-	-	-	-	6.4	-	-	-	-	
20 000 - 49 999	1	27 672	3	91 561	3	79 088	50.0	8.9	13.8	75.0	9.5	200.0	185.8	-	-	
Honduras																
20 000 and over	2	93 524	3	217 570	6	536 104	100.0	100.0	100.0	100.0	100.0	100.0	100.0	200.0	473.2	
1 000 000 and over	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
500 000 - 999 999	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
100 000 - 499 999	-	-	1	134 075	2	418 727	-	33.3	61.7	33.3	78.1	-	-	-	-	
50 000 - 99 999	1	72 385	1	58 632	-	-	50.0	77.4	26.9	33.3	-	-	-	-	-	
20 000 - 49 999	1	21 139	1	24 863	4	117 377	50.0	22.6	11.4	33.3	21.9	300.0	455.2	-	-	

Table 7 (Continuation)

	1950		1960		1970		Percentage 1950-1970	
	Localities Population		Localities Population		Localities Population		Localities Population	
	Localities	Population	Localities	Population	Localities	Population	Localities	Population
CARIBBEAN ISLANDS a/	38	3 397 540	50	4 792 574	74	7 298 211		
Antigua								
20 000 and over			1	21 396	1	21 814	100.0	100.0
20 000 - 49 999			1	21 396	1	21 814	100.0	100.0
Bahamas ^{b/}								
20 000 and over	1	36 243	1	80 907	2	127 225	100.0	100.0
100 000-499 999					1	101 182		50.0
50 000 - 99 999			1	80 907			100.0	79.5
20 000 - 49 999	1	36 243			1	26 043		50.0
Barbados ^{c/}								
20 000 and over	1	76 437	1	82 264	1	88 000	100.0	100.0
50 000 - 99 999	1	76 437	1	82 264	1	88 000	100.0	100.0
Belize ^{d/}								
20 000 and over	22	2 102 309	26	2 642 166	31	3 684 707	100.0	100.0
1 000 000 and over	1	1 098 587	1	1 322 440	1	1 751 216		3.2
500 000 - 999 999							52.3	47.5
100 000 - 499 999	2	273 625	2	349 806	5	866 222		
50 000 - 99 999	5	321 549	7	502 774	9	612 961	13.0	16.1
20 000 - 49 999	14	408 548	16	476 146	16	454 306	26.9	29.0
Guadeloupe								
20 000 and over	1	26 160	2	58 805	2	69 433	100.0	100.0
Haiti								
20 000 and over	2	158 540	2	271 056	4	546 350	100.0	100.0
100 000 - 499 999	1	134 117	1	237 994	1	448 807		25.0
20 000 - 49 999	1	24 423	1	33 062	1	97 543	84.6	82.1
							50.0	17.9
							50.0	12.2

/continues

Table 7. (Continued)

	1950			1960			1970			Percentage			Percentage increase		
	Localities	Population		Localities	Population		Localities	Population		1960	1970	1950-1970	Localities	Population	
Jamaica															
20 000 and over	1	143 000		2	147 000		4	225 000		100.0	100.0	100.0	100.0	200.0	102.3
100 000 - 499 999	1	110 000		1	123 400		1	111 900		100.0	100.0	100.0	50.0	0.0	1.7
20 000 - 49 999	-	-		1	23 600		3	110 600		-	-	50.0	50.0	200.0	368.6
Martinique															
20 000 and over	1	60 648		1	85 201		1	96 943		100.0	100.0	100.0	100.0	0.0	50.8
50 000 - 99 999	1	60 648		1	85 201		1	96 943		100.0	100.0	100.0	100.0	0.0	50.8
Puerto Rico															
20 000 and over	6	465 792		5	657 653		12	1 135 053		100.0	100.0	100.0	100.0	100.0	143.7
100 000 - 499 999	1	224 767		2	546 663		3	728 531		16.7	48.3	83.1	25.0	230.0	224.1
50 000 - 99 999	2	158 436		1	50 147		4	281 668		33.3	34.0	7.6	33.3	100.0	256.6
20 000 - 49 999	3	82 589		2	60 843		5	124 854		50.0	17.7	9.3	40.0	66.7	51.2
Dominican Republic															
20 000 and over	2	238 111		7	560 700		14	1 208 545		100.0	100.0	100.0	100.0	600.0	407.6
1 000 000 and over	-	-		-	-		-	-		-	-	-	-	-	-
50 000 - 999 999	-	-		-	-		1	673 407		-	-	-	7.1	55.7	-
100 000 - 499 999	1	181 553		1	369 920		1	155 000		50.0	76.2	65.0	7.1	12.8	14.6
50 000 - 99 999	1	56 556		1	85 640		-	-		50.0	23.8	15.1	14.3	0.0	-
20 000 - 49 999	-	-		5	113 090		12	380 075		-	-	19.9	71.4	85.8	-
Trinidad and Tobago															
20 000 and over	2	123 300		2	133 800		2	123 360		100.0	100.0	100.0	100.0	100.0	0.0
50 000 - 99 999	1	94 200		1	94 000		1	86 463		50.0	76.4	70.3	50.0	50.0	-8.2
20 000 - 49 999	1	29 100		1	39 800		1	36 900		50.0	23.6	29.7	50.0	50.0	26.8

/continues

Table 7. (Continuation)

	1950		1960		1970		1980		Percentage increase 1950-1970	
	Localities Population		Localities Population		Localities Population		Localities Population		Localities Population	
	Localities	Population	Localities	Population	Localities	Population	Localities	Population	Localities	Population
Venezuela										
20 000 and over	22	1 561 109	43	3 536 306	64	6 363 994	100.0	100.0	100.0	100.0
100 000 and over	-	-	-	-	1	1 035 499	-	-	1.6	16.3
500 000 - 999 999	-	-	1	786 863	1	651 574	-	-	1.6	10.2
1 000 000 - 499 999	3	835 922	6	1 133 181	15	2 645 258	2.3	22.3	23.4	41.6
50 000 - 99 999	4	263 152	12	823 151	15	1 034 481	13.6	32.0	23.4	16.3
20 000 - 49 999	15	462 035	24	793 111	32	996 822	18.2	23.9	23.4	15.6
							55.8	22.4	50.0	
Guyana										
20 000 and over	-	-	1	70 189	2	187 000	-	-	100.0	100.0
1 000 000 and over	-	-	-	-	-	-	-	-	-	-
500 000 - 999 999	-	-	-	-	-	-	-	-	-	-
100 000 - 499 999	-	-	-	-	1	167 000	-	-	50.0	89.3
50 000 - 99 999	-	-	1	70 189	-	-	-	-	-	-
20 000 - 49 999	-	-	-	-	1	20 000	100.0	100.0	50.0	10.7
Suriname										
20 000 and over	1	74 337	1	110 867	1	102 000	100.0	100.0	100.0	100.0
1 000 000 and over	-	-	-	-	-	-	-	-	-	0.0
500 000 - 999 999	-	-	-	-	-	-	-	-	-	-
100 000 - 499 999	-	-	1	110 867	1	102 000	-	-	-	-
50 000 - 99 999	1	74 337	-	-	-	-	100.0	100.0	100.0	100.0
20 000 - 49 999	-	-	-	-	-	-	-	-	-	-
French Guiana										
20 000 and over	-	-	-	-	1	20 000	-	-	100.0	100.0
1 000 000	-	-	-	-	-	-	-	-	-	-
500 000 - 999 999	-	-	-	-	-	-	-	-	-	-
100 000 - 499 999	-	-	-	-	-	-	-	-	-	-
50 000 - 99 999	-	-	-	-	-	-	-	-	-	-
20 000 - 49 999	-	-	-	-	1	20 000	-	-	100.0	100.0

/continues

	1950			1960			1970			Percentage		Percentage Increase		Increase in absolute figures
	Localities	Population	Localities	Population	Localities	Population	Localities	Population	1950	1960	1950-1970	Localities	Population	
CENTRAL AMERICA														
20 000 and over	78	7 229 455	130	12 277 392	220	20 763 415	100.0	100.0	100.0	100.0	100.0	100.0	100.0	182.1
1 000 000 and over	1	2 233 914	1	2 032 133	2	4 096 570	1.3	30.9	0.8	23.1	0.9	19.7	100.0	187.2
500 000 - 999 999	-	-	3	1 706 410	3	2 139 047	-	-	2.3	13.9	1.4	10.3	-	83.4
100 000 - 499 999	14	2 502 097	18	3 388 037	36	7 694 110	17.9	34.6	13.8	27.6	16.3	37.0	157.1	207.1
50 000 - 99 999	16	1 044 159	26	1 858 145	40	2 743 436	20.5	14.4	20.0	15.1	18.2	13.2	150.0	162.7
20 000 - 49 999	47	1 449 285	82	2 492 667	139	4 090 252	60.3	20.1	63.1	20.3	63.2	19.8	195.7	182.2
NORTH AND NORTH-EAST														
SOUTH AMERICA														
20 000 and over	50	4 291 565	92	10 110 994	138	16 409 994	100.0	100.0	100.0	100.0	100.0	100.0	176.0	262.4
1 000 000 and over	-	-	1	1 697 311	3	4 802 693	-	-	1.1	16.8	2.2	29.3	-	262.4
500 000 - 999 999	1	715 250	3	2 122 943	3	2 210 836	2.0	16.7	3.3	21.0	2.2	13.5	200.0	299.1
100 000 - 499 999	8	1 895 950	16	3 013 269	30	5 116 698	16.0	44.2	17.4	29.8	21.7	31.2	275.0	169.9
50 000 - 99 999	11	738 757	26	1 790 220	30	2 157 296	22.0	17.2	28.2	17.7	21.7	13.1	172.7	192.0
20 000 - 49 999	30	941 608	46	1 487 251	72	2 122 471	60.0	21.9	50.0	14.7	52.2	12.9	140.0	125.4
CARIBBEAN ISLANDS														
20 000 and over	39	3 397 540	50	4 727 632	74	7 323 933	100.0	100.0	100.0	100.0	100.0	100.0	89.7	115.6
1 000 000 and over	1	1 098 507	1	1 322 440	1	1 751 216	2.6	32.3	2.0	29.0	1.4	23.9	0.0	59.4
500 000 - 999 999	-	-	-	-	1	673 470	-	-	-	-	1.4	9.2	-	-
100 000 - 499 999	6	924 062	7	1 618 843	12	2 411 642	15.4	27.2	14.0	34.2	16.2	32.9	100.0	161.0
50 000 - 99 999	11	767 628	13	981 013	16	1 166 035	28.2	22.6	26.0	20.8	21.6	15.9	45.5	51.9
20 000 - 49 999	21	607 063	29	805 336	44	1 321 570	53.8	17.9	58.0	17.0	59.4	18.1	109.5	117.7
GRAND TOTAL														
20 000 and over	167	14 918 560	272	27 116 018	432	44 497 342	100.0	100.0	100.0	100.0	100.0	100.0	153.7	265.5
1 000 000 and over	2	3 322 501	3	5 851 894	6	10 650 479	1.2	22.3	1.1	21.6	1.4	23.9	198.3	265.5
500 000 - 999 999	1	715 250	3	2 029 353	7	5 023 353	0.6	4.8	2.2	14.1	1.6	11.3	200.0	219.6
100 000 - 499 999	28	5 322 109	41	8 020 149	78	15 222 450	16.8	35.7	15.1	29.6	18.1	34.3	178.6	602.3
50 000 - 99 999	38	2 550 744	65	4 629 378	86	6 066 767	22.8	17.1	23.9	17.1	19.9	13.6	126.3	186.0
20 000 - 49 999	98	2 997 956	157	4 785 254	255	7 534 293	58.6	20.1	57.6	17.6	59.0	16.9	160.2	137.8

Source: For Antigua, Bahamas, Guadalupe and Martinique: Demographic Yearbook 1970. (United Nations publication, Sales No. E/F.71.XIII.1). For the remaining countries: Boletín demográfico (CELADE, Santiago, Chile), año X, No. 19 (enero de 1977).

a/ Excluding the Netherlands Antilles in the absence of information.

b/ The information for the Bahamas differs from that in table 5 as it is derived from a different source.

c/ Bridgetown parish.

d/ Estimates for 1960.

Table 8

CARIBBEAN BASIN: RURAL POPULATION BY COUNTRY, PERCENTAGE OF TOTAL RURAL DENSITY AND PERCENTAGE CHANGE^{a/}

	Rural population						Density			Percentage change in density		
	1950		1960		1970		1950	1960	1970	1950-1960	1960-1970	1950-1970
	Number	Percentage	Number	Percentage	Number	Percentage						
Central America	26 576 587	76.4	33 572 243	70.4	41 597 304	64.0	10.7	13.5	16.8	26.2	14.4	57.0
Belize	37 334	63.0	57 638	63.7	80 934	67.5	1.6	2.5	3.5	56.3	40.0	118.8
Costa Rica	659 018	82.3	1 010 489	75.6	1 367 108	73.0	12.9	19.9	26.9	65.6	35.2	108.5
El Salvador	1 615 562	87.0	2 067 587	82.3	2 823 186	79.5	77.2	90.8	134.9	28.0	36.5	74.7
Guatemala	2 478 920	88.8	3 623 765	84.5	4 342 787	83.9	22.8	33.3	39.9	46.1	19.8	75.0
Honduras	1 275 087	93.2	1 667 195	88.5	2 117 753	79.8	11.4	16.8	18.9	47.4	12.5	65.8
Mexico	18 936 561	73.5	23 202 226	66.4	28 636 118	59.4	9.6	11.8	14.6	22.9	23.7	52.1
Nicaragua	896 092	84.8	1 181 642	77.0	1 319 627	69.0	6.4	10.0	11.1	56.3	11.0	73.4
Panama	625 207	77.6	719 579	66.9	865 593	60.6	8.4	9.5	11.4	13.1	20.0	35.7
Canal Zone	52 822	100.0	42 122	100.0	44 193	100.0	36.9	24.9	30.9	-20.3	5.1	-16.3
North and North-east South America	12 079 333	75.0	15 815 635	61.0	16 531 033	50.2	5.1	6.3	6.6	23.5	4.8	29.4
Colombia	8 893 053	77.0	11 090 876	63.4	11 332 113	53.8	7.8	9.7	9.9	24.4	2.1	26.9
Venezuela	3 473 729	69.0	3 987 693	53.0	4 357 528	40.6	3.9	4.4	4.8	12.6	9.1	23.1
Guyana	375 701	100.0	490 217	87.5	527 000	73.8	1.7	2.3	2.5	35.3	8.7	47.1
Suriname	109 344	59.5	213 344	65.8	290 000	74.0	0.8	1.3	1.8	62.5	38.5	125.0
French Guiana	28 506	100.0	33 505	100.0	24 392	54.9	0.3	0.4	0.3	33.0	25.0	-

/continues

Table 8 (Conclusion)

	1950		1960		1970		Density			Percentage change in density		
	Number	Percentage	Number	Percentage	Number	Percentage	1950	1960	1970	1950-1960	1960-1970	1950-1970
Caribbean Islands	13 074 653	76.8	14 656 331	74.9	16 825 720	69.7	55.7	63.3	71.7	13.6	13.3	26.7
Antigua	41 757	100.0	32 664	60.4	43 711	66.7	94.5	73.0	98.9	-21.8	33.8	4.7
Bahamas	34 757	49.0	60 907	61.5	67 309	39.9	2.5	4.9	4.0	96.0	-2.0	92.0
Barbados	116 363	60.4	150 536	64.7	150 141	63.0	270.0	350.1	348.4	29.7	-0.5	29.0
Cayman Islands	6 410	100.0	8 511	100.0	10 460	100.0	24.7	32.9	40.4	33.2	22.8	63.6
Cuba	3 726 720	63.9	4 145 738	61.1	4 810 697	56.6	32.5	36.2	43.4	11.4	19.9	33.5
Dominica	47 624	100.0	59 916	100.0	69 549	100.0	63.4	79.8	92.6	25.9	16.0	46.1
Dominican Republic	1 897 761	60.9	2 478 370	61.3	2 797 860	69.8	39.2	51.2	57.8	30.6	12.9	47.4
Grenada	72 367	100.0	86 677	100.0	92 775	100.0	210.4	252.0	269.7	19.8	7.0	28.2
Guadeloupe	186 840	67.7	218 195	78.8	283 202	66.2	105.0	122.7	159.2	16.8	29.7	51.6
Haiti	2 938 690	94.9	3 358 886	92.5	3 768 278	87.5	104.5	119.4	136.2	14.3	14.1	30.3
British Virgin Islands	6 505	100.0	7 921	100.0	9 825	100.0	42.5	51.8	64.2	21.9	23.9	51.1
United States Virgin Is.	27 000	100.0	32 000	100.0	62 468	100.0	76.5	93.0	181.5	18.5	95.2	131.2
Jamaica	1 366 923	92.5	1 462 814	90.9	1 591 094	87.7	119.7	133.8	145.1	11.8	9.4	21.2
Martinique	178 482	74.6	287 313	70.9	223 087	70.0	162.0	188.1	202.4	16.1	7.6	24.2
Montserrat	14 333	100.0	12 167	100.0	11 458 ^{b/}	100.0	146.3	124.2	116.9	-15.1	-5.9	-20.1
Netherlands Antilles	120 403	74.8	148 454	77.3	179 301 ^{b/}	80.4	125.3	154.5	186.6	23.3	20.8	48.9
Puerto Rico	1 672 418	75.7	1 607 224	68.4	1 576 980	58.1	186.0	180.6	177.2	-3.9	-1.9	-5.7
St. Kitts, Nevis, Anguilla	46 243	100.0	56 693	100.0	64 000	100.0	129.5	158.8	179.3	22.6	12.9	30.5
St. Lucia	70 113	100.0	86 108	100.0	99 806	100.0	113.8	139.8	162.0	22.8	15.9	42.4
St. Vincent	61 647	100.0	79 948	100.0	96 314	100.0	150.9	206.1	222.5	29.7	8.0	40.0
Trinidad and Tobago	434 670	77.9	694 157	83.8	821 847	86.9	135.4	160.3	160.3	59.7	18.4	89.0
Turks and Caicos Islands	6 817	100.0	5 668	100.0	5 558	100.0	15.6	12.9	12.7	-17.3	-1.6	-19.6

a/ In accordance with the definition of the urban population, used by the United Nations, the rural population is defined as the population living in localities of less than 20 000 inhabitants.

b/ In the absence of information on the population in localities of 20 000 inhabitants and over for 1970, the figure for 1960 was used to calculate the balance in rural areas.

Table 9

RURAL POPULATION, DENSITY AND PERCENTAGE CHANGE

	Rural population						Density			Percentage change		
	1950			1970			1950	1960	1970	1950-1960	1960-1970	1950-1970
	Number	Percentage	Number	Percentage	Number	Percentage						
Total	10 173 709		13 035 565		16 017 693		9.3	11.9	14.6	26.0	22.7	57.0
Mexico	6 804 400	80.7	8 379 020	75.8	10 246 780	69.2	6.9	11.0	13.4	23.6	21.8	50.6
Quintana Roo	26 957	100.0	50 169	100.0	64 465	73.1	0.5	1.2	1.3	140.0	9.3	160.5
Campeche	90 007	74.4	103 131	61.3	147 304	58.6	1.8	1.6	2.0	~	55.6	55.6
Chiapas	848 660	93.6	1 104 705	91.2	1 371 039	87.4	11.4	15.0	18.6	31.6	24.0	63.2
Tlaxcala	329 114	90.7	444 078	89.5	668 762	87.0	13.0	18.0	27.1	30.5	50.6	100.5
Veracruz	1 766 909	86.6	2 283 627	83.7	2 933 748	74.4	24.6	31.4	39.0	27.6	24.2	50.5
Oaxaca	1 374 386	96.7	1 654 096	95.6	1 863 667	92.5	14.6	17.4	19.5	19.2	12.1	33.6
San Luis Potosí	730 304	65.3	864 494	62.5	975 571	76.1	11.5	13.0	15.5	20.0	12.3	34.8
Tamaulipas	391 923	54.6	515 209	50.3	588 283	40.4	4.9	6.5	7.4	32.7	13.0	51.0
Nuevo León	406 733	55.0	454 889	42.2	710 490	41.9	6.2	7.0	11.0	12.9	57.1	77.4
Coahuila	464 503	64.5	460 557	50.7	473 406	42.5	3.1	3.0	3.1	-3.2	3.3	~
Yucatán	374 019	72.4	443 215	72.2	546 258	72.0	0.3	10.0	11.1	20.5	11.0	33.7
Guatemala	1 510 392	100.0	2 115 437	99.0	2 556 182	99.1	16.9	23.7	28.6	40.2	20.6	69.2
Peten	15 390	100.0	26 562	100.0	67 020	100.0	0.4	0.7	1.9	75.0	171.4	375.0
Alta Verapaz	189 912	100.0	260 490	100.0	106 440	100.0	21.9	30.0	32.2	37.0	7.3	47.0
Huehuetenango	200 101	100.0	268 080	100.0	363 380	100.0	27.0	38.9	49.1	44.1	26.2	81.9
Quiiché	174 911	100.0	249 939	100.0	303 880	100.0	29.9	29.8	36.3	42.6	21.8	73.7
Baja Verapaz	66 313	100.0	96 485	100.0	279 880	100.0	21.2	30.9	34.1	45.8	10.4	60.0
Izabal	55 032	100.0	94 353	86.7	147 362	86.7	6.1	10.4	16.3	70.5	56.7	167.2
Zacapa	69 536	100.0	96 554	100.0	105 100	100.0	25.8	35.9	39.1	39.1	8.9	51.6
Chiquimula	112 841	100.0	149 752	100.0	161 900	100.0	47.5	63.0	68.2	32.6	8.3	43.6
El Progreso	47 872	100.0	65 502	100.0	72 840	100.0	24.9	34.1	37.9	36.9	11.1	52.2
Jalapa	75 190	100.0	99 153	100.0	119 963	100.0	36.4	48.1	58.7	32.1	20.6	59.6
Totonicapán	99 354	100.0	141 772	100.0	166 780	100.0	93.6	133.6	159.0	42.7	19.0	69.9
Jutiapa	130 925	100.0	194 777	100.0	234 500	100.0	43.2	60.5	72.9	40.0	20.5	60.8
Sacatepequez	60 124	100.0	80 942	100.0	99 160	100.0	129.3	174.1	213.2	34.6	22.5	64.9
Chimaltenango	121 480	100.0	163 153	100.0	197 700	100.0	61.4	82.4	99.9	34.2	21.2	62.7
Solola	82 921	100.0	107 822	100.0	128 120	100.0	78.2	101.6	120.8	29.9	18.9	54.5

Table 9 (Conclusion)

	Rural population						Density			Percentage change		
	1950		1960		1970		1950	1960	1970	1950-1960	1960-1970	1950-1970
	Number	Percentage	Number	Percentage	Number	Percentage						
<u>Costa Rica</u>	342 625	100.0	496 290	90.3	661 313	82.7	14.1	20.4	27.2	44.7	33.3	92.2
Alajuela	148 850	100.0	216 448	89.9	292 910	89.8	15.7	22.8	30.8	61.1	35.1	96.2
Heredia	51 760	100.0	85 063	100.0	111 144	83.0	17.9	29.3	38.3	64.6	30.7	115.2
Limon	41 360	100.0	39 346	57.5	74 313	64.5	4.4	4.2	8.0	4.5	90.5	81.8
Cartago	100 725	100.0	155 433	100.0	182 946	89.4	39.7	50.8	70.4	5.4	17.7	81.9
<u>Panama</u>	60 332	53.6	74 418	53.9	110 122	61.9	3.8	4.6	6.9	21.1	50.0	81.6
Bocas del Toro	22 392	100.0	32 600	100.0	43 534	100.0	2.6	3.7	4.9	42.3	32.4	88.5
Colon	37 940	42.1	45 818	43.5	66 501	49.6	5.1	6.1	8.9	19.6	45.9	74.5
<u>Nicaragua</u>	420 929	100.0	615 386	100.0	670 426	94.2	4.3	6.3	6.9	46.5	9.5	66.5
Zelaya	56 497	100.0	68 963	100.0	149 016	100.0	1.0	1.5	2.5	50.0	66.7	150.0
Jinotega	48 554	100.0	76 935	100.0	92 567	100.0	3.2	8.0	9.7	150.0	21.3	28.3
Matagalpa	135 401	100.0	171 465	100.0	152 373	87.7	15.5	25.2	22.4	62.6	-11.1	44.5
Chontales	50 529	100.0	75 575	100.0	60 053	100.0	9.5	15.3	14.0	61.1	-8.5	47.4
Braco	50 039	100.0	71 615	100.0	69 355	100.0	9.3	14.4	13.9	54.8	-3.5	48.5
Rio San Juan	9 089	100.0	15 671	100.0	21 159	100.0	1.3	2.1	2.8	61.5	33.3	115.4
Nueva Segovia	27 073	100.0	45 900	100.0	65 710	100.0	6.6	13.7	19.7	107.8	43.8	188.5
Esteli	43 742	100.0	69 257	100.0	59 178	74.5	21.9	31.5	26.9	43.0	-14.6	22.8
<u>Honduras</u>	1 035 041	75.6	1 355 014	71.9	1 764 062	10.1	13.2	17.1	30.7	29.5	29.5	69.3
Cortes	104 509	83.2	141 467	70.7	199 886	53.5	26.5	35.7	50.6	34.7	41.7	90.9
Santa Barbara	96 397	100.0	146 900	100.0	185 163	100.0	19.8	23.7	36.2	52.7	26.1	82.6
Copan	95 880	100.0	126 183	100.0	151 331	100.0	29.9	39.4	47.2	31.8	19.8	57.9
Occotepeque	45 673	100.0	52 543	100.0	51 161	100.0	27.2	31.3	30.5	15.1	-2.6	12.1
Lempira	90 908	100.0	111 546	100.0	127 465	100.0	21.2	26.0	29.7	22.6	14.2	40.1
La Paz	51 220	100.0	60 600	100.0	65 390	100.0	22.0	26.0	28.1	16.2	8.1	27.7
Cemayazua	66 171	100.0	96 442	100.0	135 455	100.0	13.1	18.6	26.1	42.0	43.3	90.2
Yoro	98 700	100.0	130 547	100.0	166 939	85.6	12.4	16.4	21.0	32.3	28.0	72.4
Atlantida	63 592	100.0	66 051	73.2	109 856	74.0	15.0	21.9	25.8	46.6	17.8	69.0
Colon	35 465	100.0	41 904	100.0	77 239	100.0	1.4	4.7	8.7	235.7	85.1	571.4
Olancho	83 910	100.0	110 744	100.0	151 923	100.0	3.4	4.5	6.2	32.4	32.4	82.4
Gracias a Dios	82 572	100.0	10 905	100.0	21 079	100.0	0.7	0.7	1.3	1.3	85.7	82.4
El Paraiso	117 974	100.0	106 823	100.0	140 840	100.0	11.4	14.8	19.5	29.8	31.8	71.1
Morazan	117 974	62.0	150 353	53.0	161 133	40.1	14.8	18.9	22.8	27.7	20.6	51.1

a/ The 1960 census gave a larger area for the State in 1960. b/ The 1960 census gave a smaller area for the State in 1960. c/ In 1959, the Gracias a Dios subdivision was part of Colon.

1. The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that every entry should be supported by a valid receipt or invoice to ensure transparency and accountability.

2. In the second section, the author outlines the various methods used for data collection and analysis. This includes both primary and secondary research techniques, as well as the use of statistical software to process large datasets.

3. The third section provides a detailed overview of the results obtained from the study. It highlights key findings and trends, supported by relevant data points and charts. The author also discusses the implications of these findings for future research and practice.

4. Finally, the document concludes with a summary of the main points and a list of references. The author expresses their appreciation for the support and assistance provided by the research team and funding agencies throughout the project.

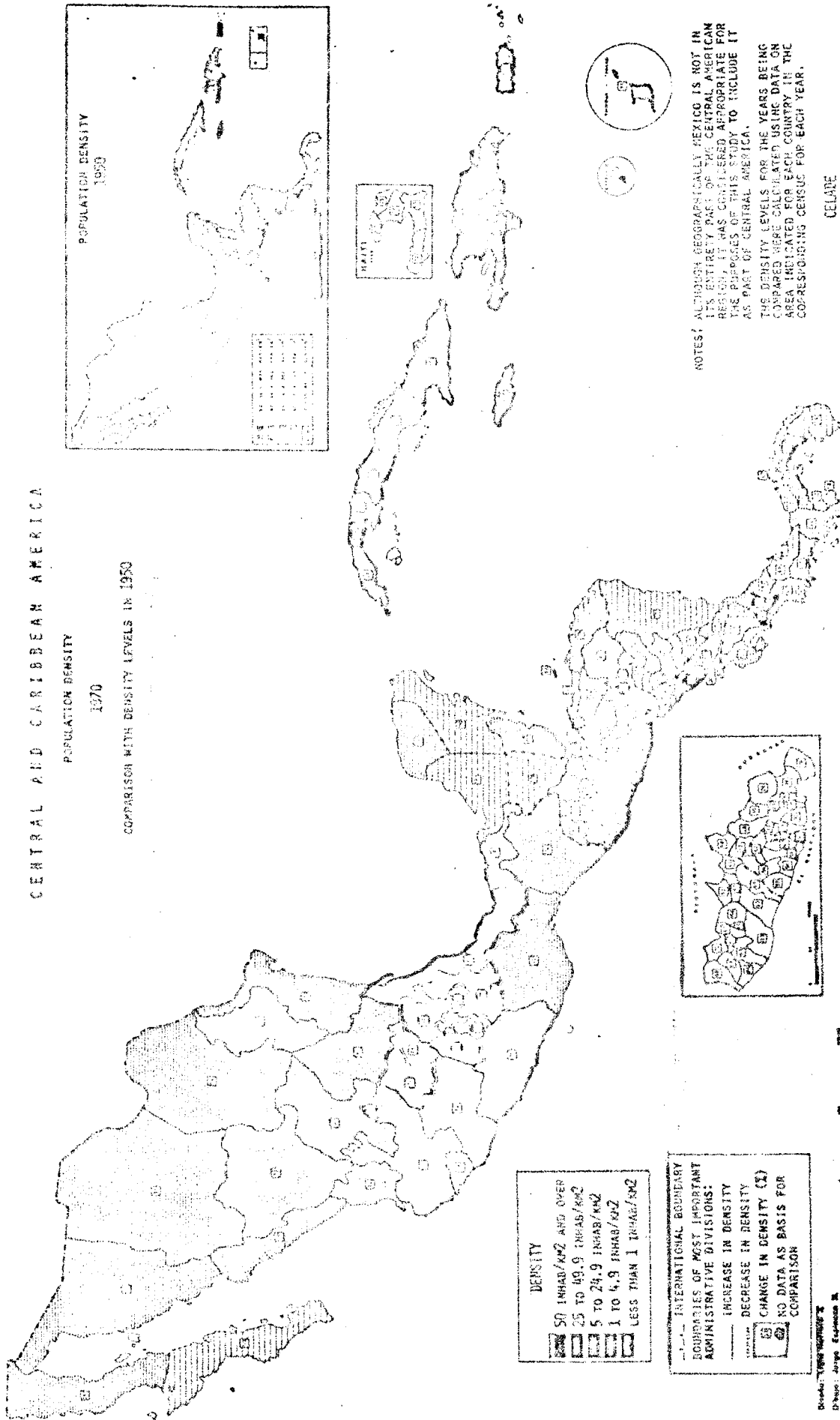
Mapa 1

CENTRAL AND CARIBBEAN AMERICA

POPULATION DENSITY

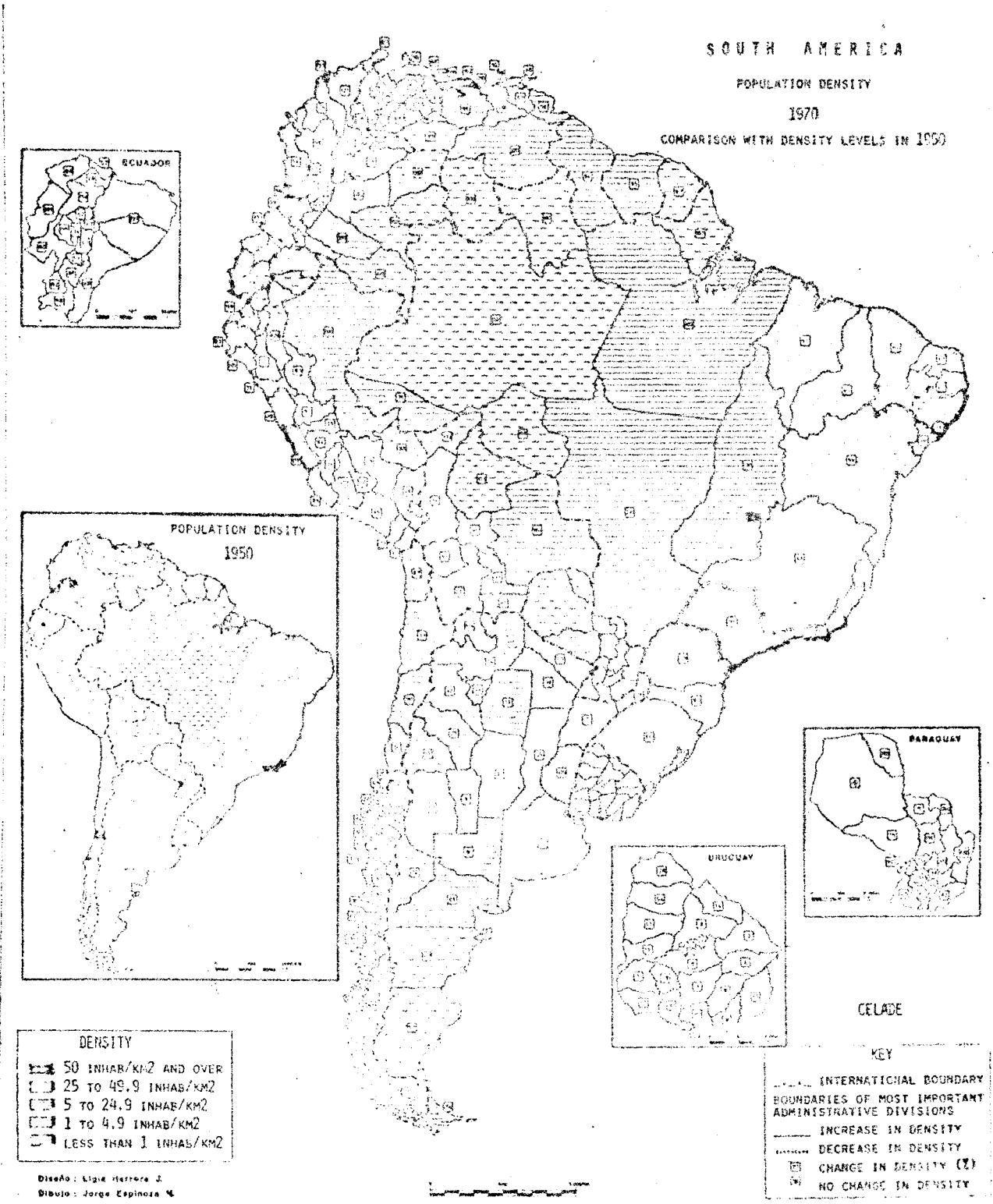
1970

COMPARISON WITH DENSITY LEVELS IN 1950





Mapa 2



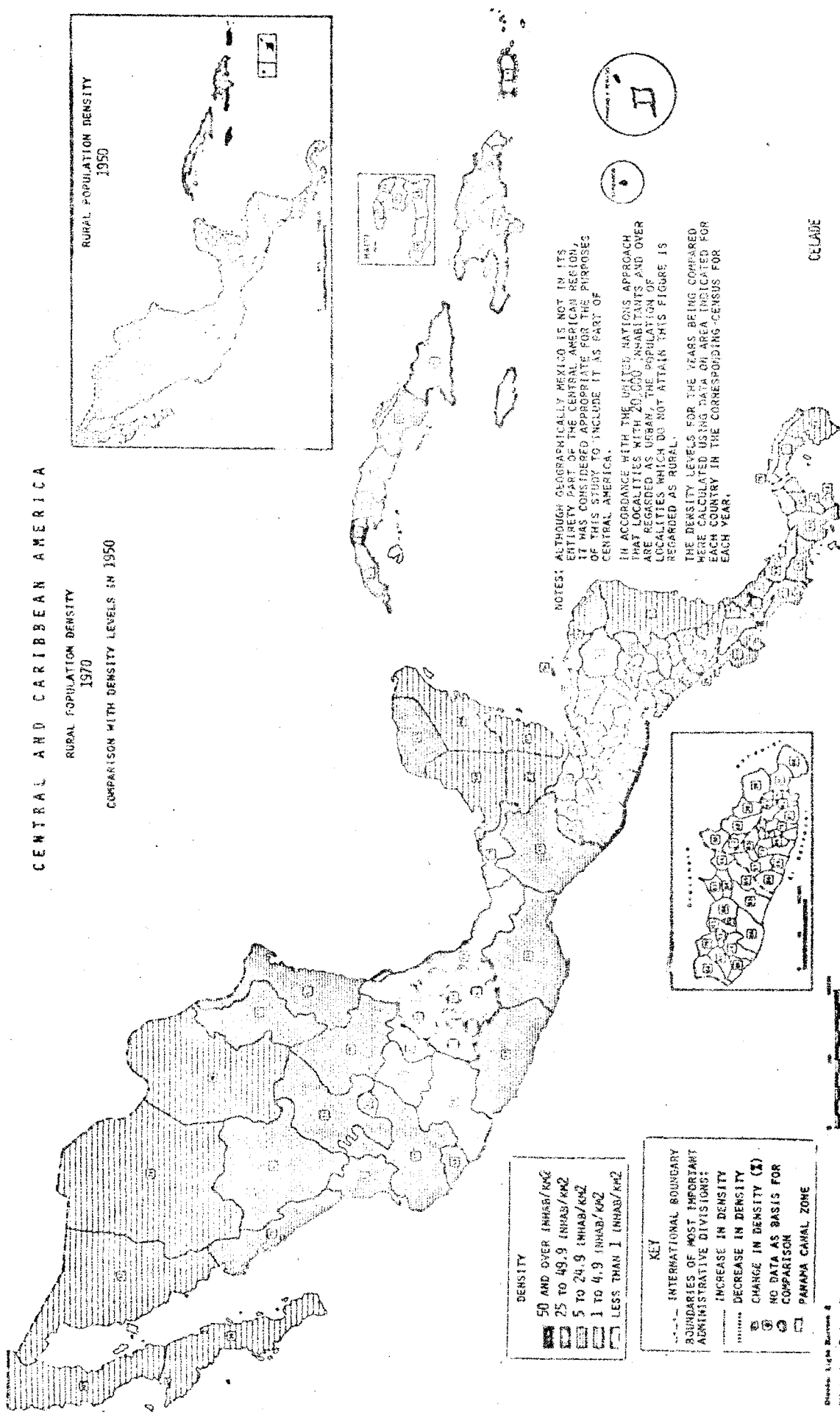
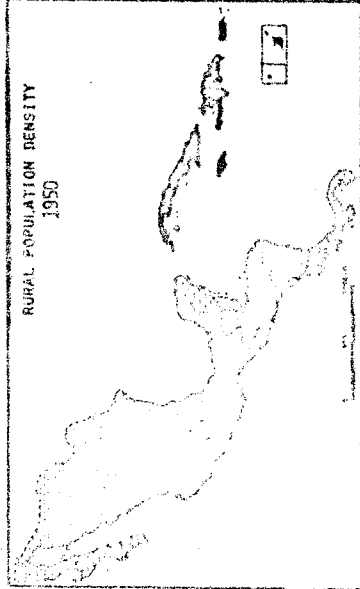
Mapa 3

CENTRAL AND CARIBBEAN AMERICA

RURAL POPULATION DENSITY

1970

COMPARISON WITH DENSITY LEVELS IN 1950



DENSITY

- 50 AND OVER INHAB/KM²
- 25 TO 49.9 INHAB/KM²
- 5 TO 24.9 INHAB/KM²
- 1 TO 4.9 INHAB/KM²
- LESS THAN 1 INHAB/KM²

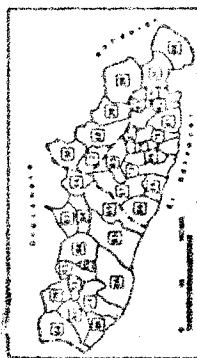
KEY

- INTERNATIONAL BOUNDARY
- BOUNDARIES OF MOST IMPORTANT ADMINISTRATIVE DIVISIONS
- INCREASE IN DENSITY
- DECREASE IN DENSITY
- NO DATA AS BASIS FOR COMPARISON
- PANAMA CANAL ZONE

NOTES: ALTHOUGH GEOGRAPHICALLY MEXICO IS NOT IN ITS ENTIRE PART OF THE CENTRAL AMERICAN REGION, IT HAS CONSIDERED APPROPRIATE FOR THE PURPOSES OF THIS STUDY TO INCLUDE IT AS PART OF CENTRAL AMERICA.

IN ACCORDANCE WITH THE UNITED NATIONS APPROACH THAT LOCALITIES WITH 20,000 INHABITANTS AND OVER ARE REGARDED AS URBAN, THE POPULATION OF LOCALITIES WHICH DO NOT ATTAIN THIS FIGURE IS REGARDED AS RURAL.

THE DENSITY LEVELS FOR THE YEARS BEING COMPARED WERE CALCULATED USING DATA ON AREA DESIGNATED FOR EACH COUNTRY IN THE CORRESPONDING-CENSUS FOR EACH YEAR.

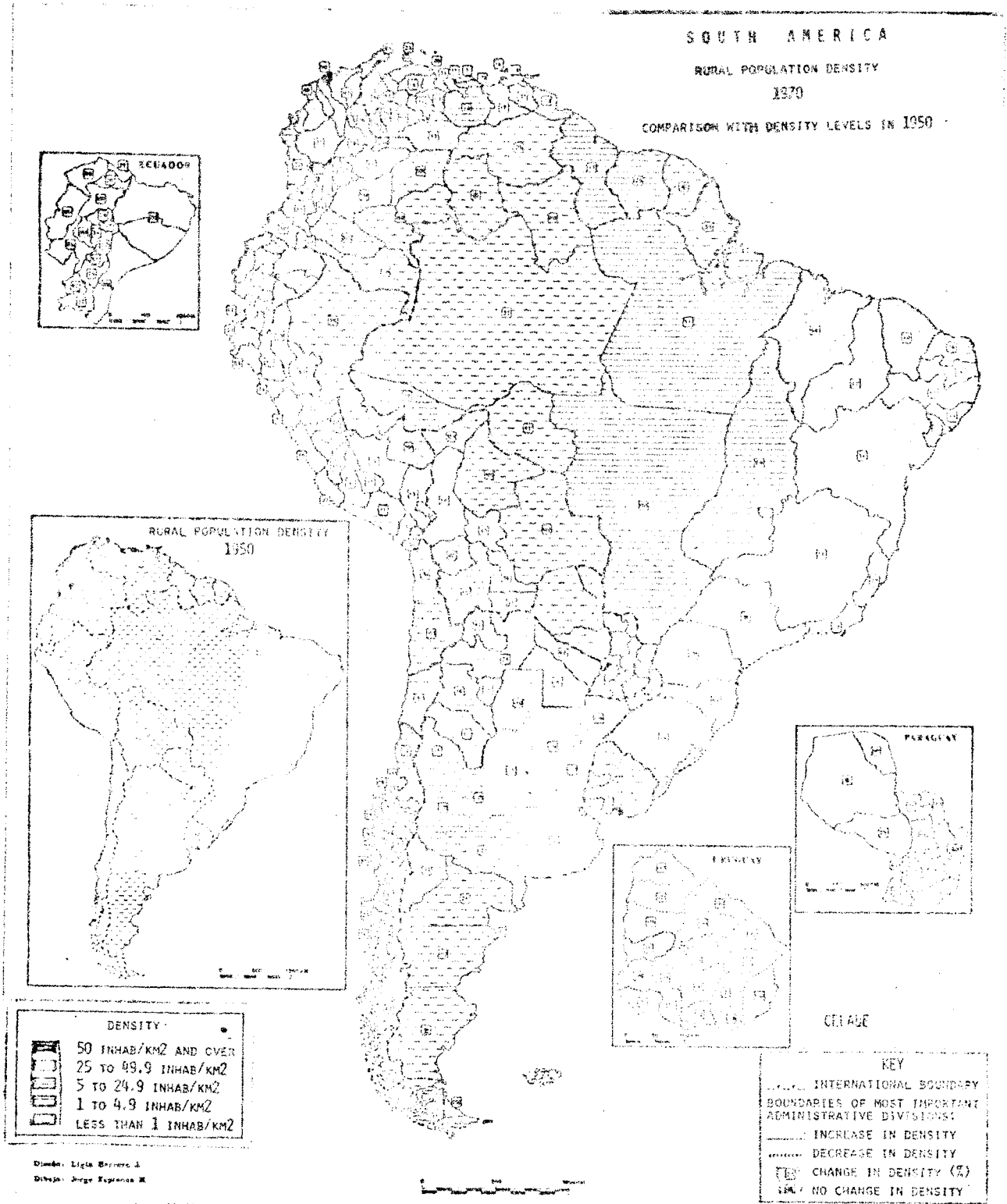


CELIADE

Checked: Light Bureau 2
Designed: Jorge Engelmann 2

/Mapa 4

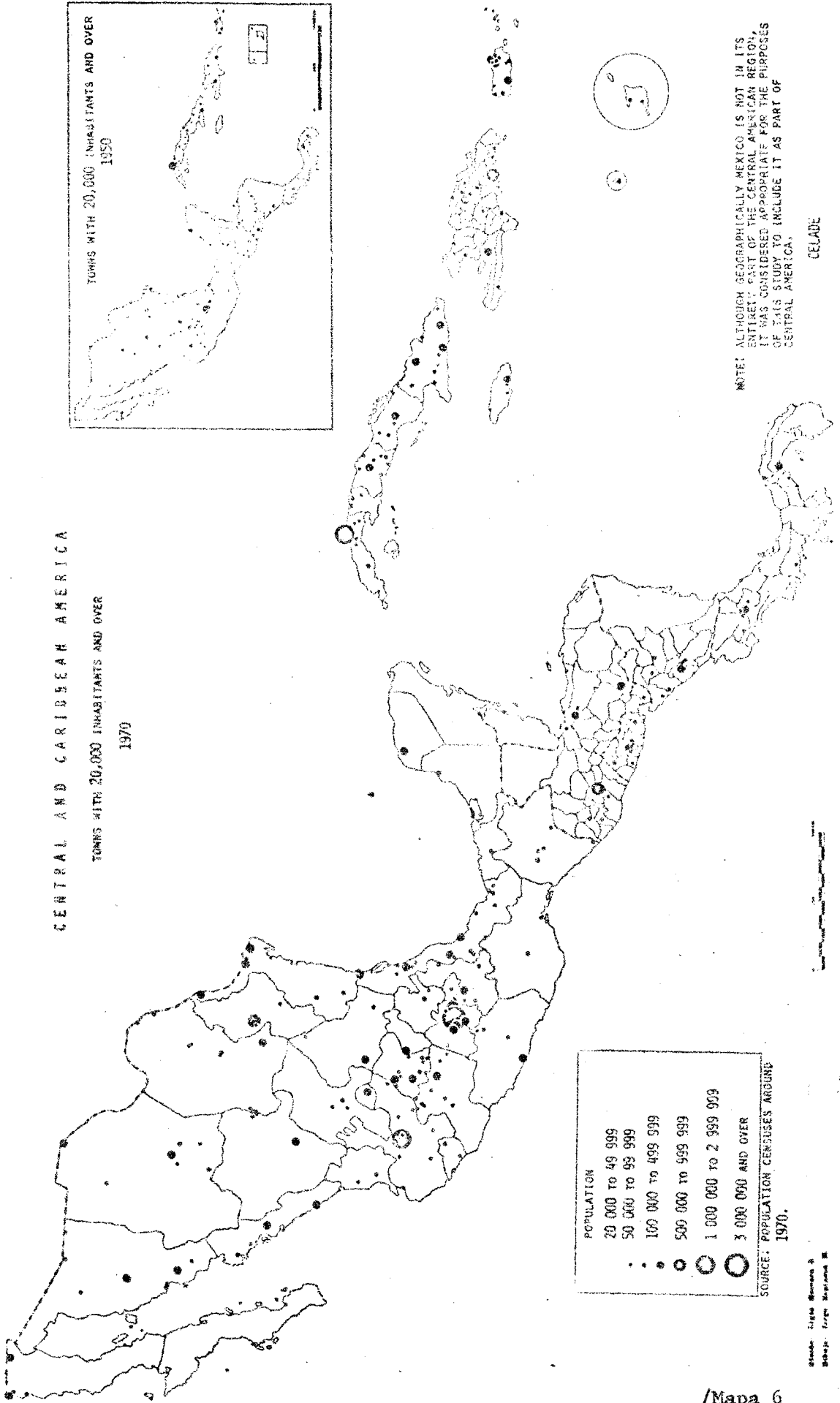
Mapa 4



Mapa 5

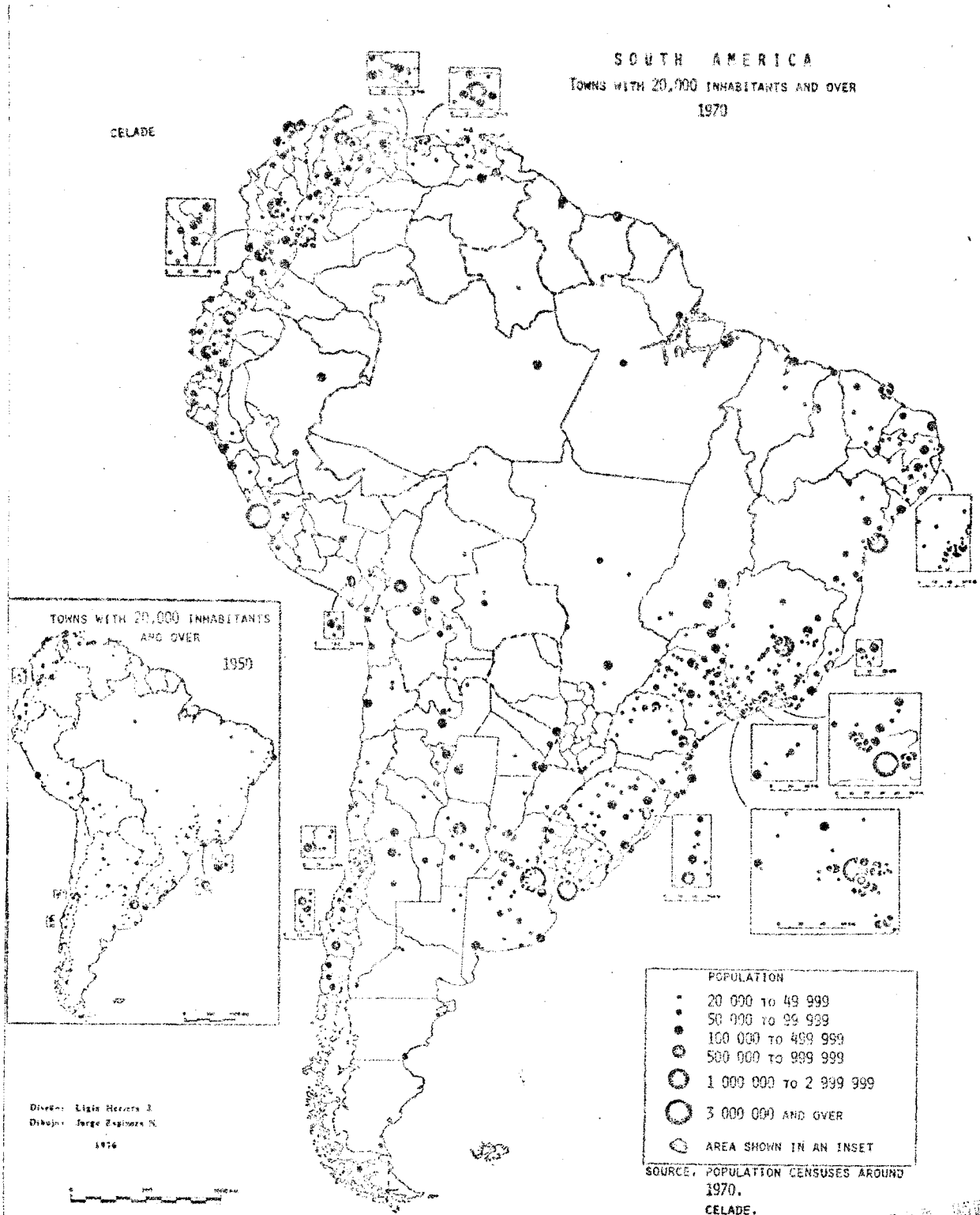
CENTRAL AND CARIBBEAN AMERICA

TOWNS WITH 20,000 INHABITANTS AND OVER
1970



/Mapa 6

Mapa 6



BIBLIOTECA DEL CONGRESO NACIONAL MEXICANO / Mapa 7

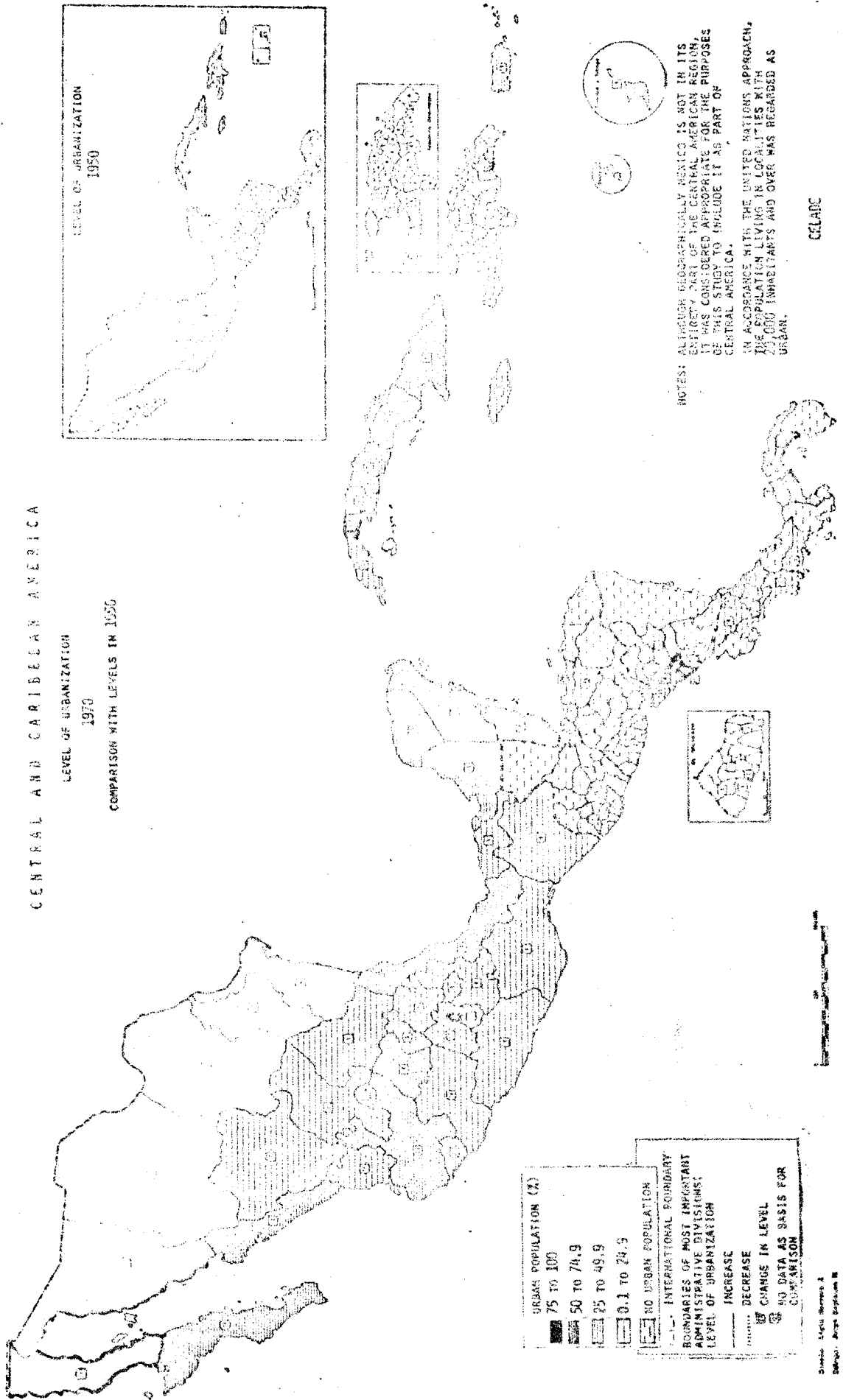
Mapa 7

CENTRAL AND CARIBBEAN AMERICA

LEVEL OF URBANIZATION

1970

COMPARISON WITH LEVELS IN 1950



URBAN POPULATION (%)

- 75 TO 100
- 50 TO 74.9
- 25 TO 49.9
- 0.1 TO 24.5
- NO URBAN POPULATION

INTERNATIONAL BOUNDARY

BOUNDARIES OF MOST IMPORTANT ADMINISTRATIVE DIVISIONS

LEVEL OF URBANIZATION

INCREASE

DECREASE

CHANGE IN LEVEL

NO DATA AS BASIS FOR COMPARISON

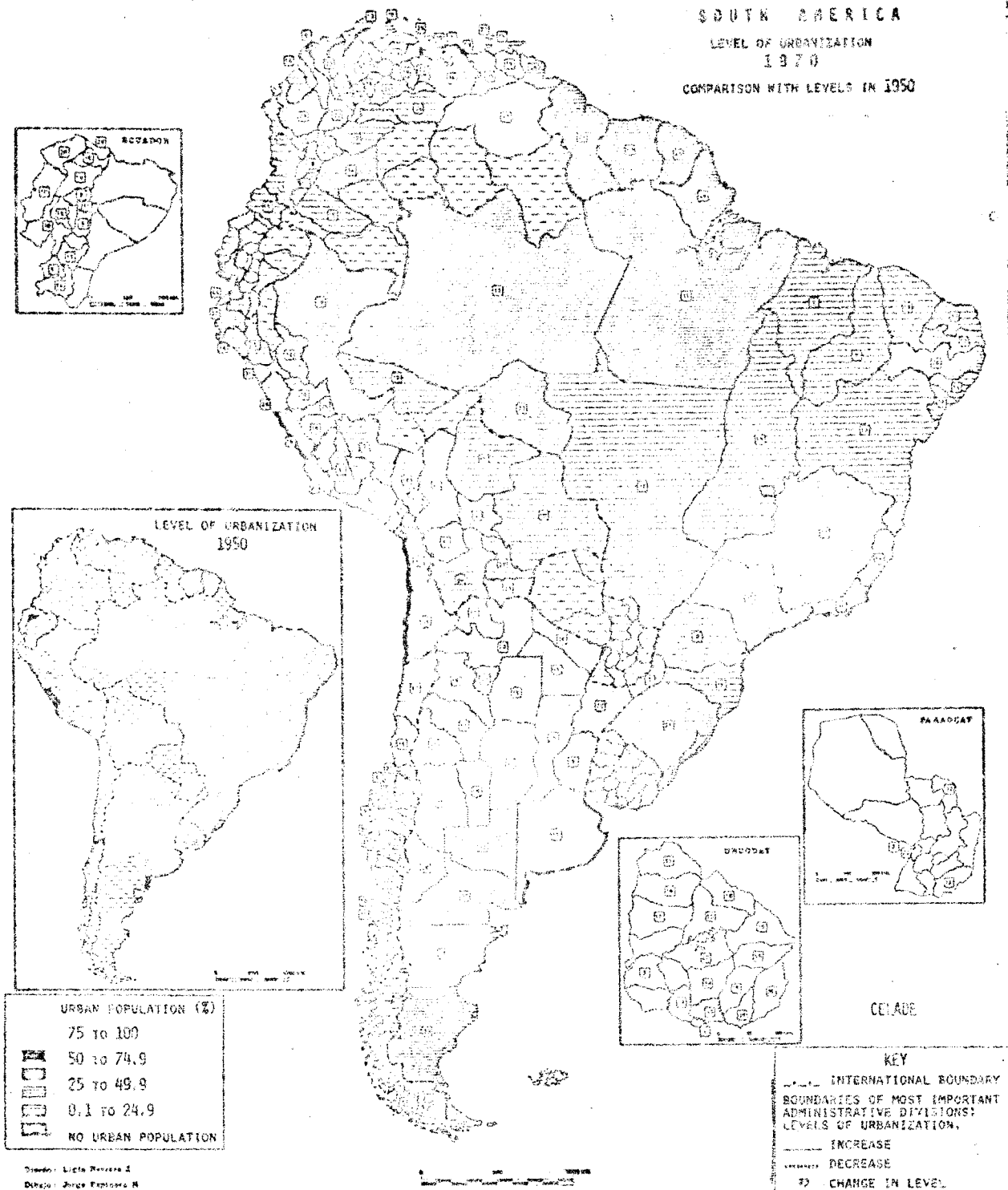
NOTES: ALTHOUGH GEOGRAPHICALLY MEXICO IS NOT IN ITS ENTIRETY PART OF THE CENTRAL AMERICAN REGION, IT WAS CONSIDERED APPROPRIATE FOR THE PURPOSES OF THIS STUDY TO INCLUDE IT AS PART OF CENTRAL AMERICA.

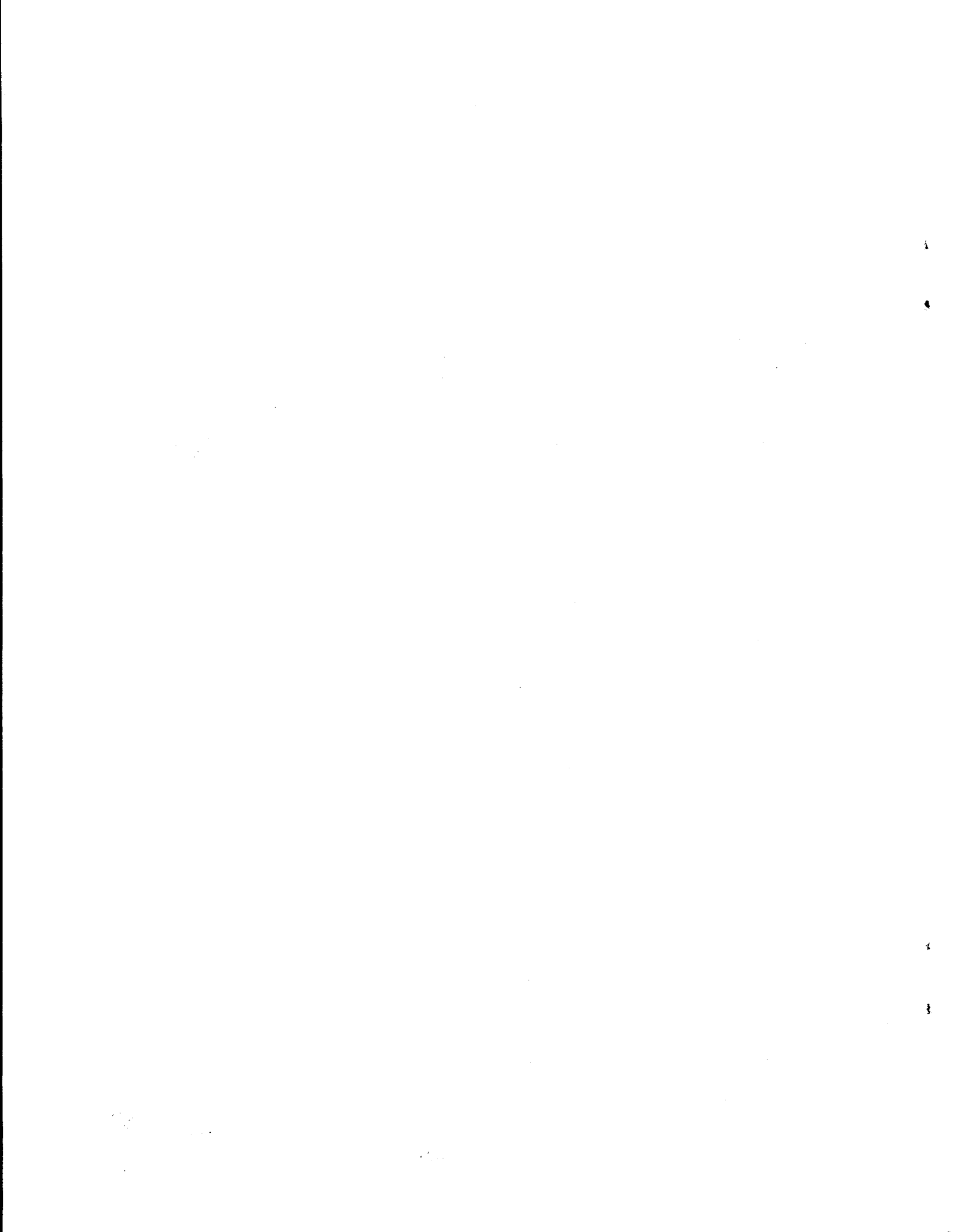
IN ACCORDANCE WITH THE UNITED NATIONS APPROACH, THE POPULATION LIVING IN LOCALITIES WITH 25,000 INHABITANTS AND OVER WAS REGARDED AS URBAN.

CELARDE

Shaded Light Brown & Darker Brown

Mapa 3





BIBLIOTECA NACIONES UNIDAS MEXICO

