



# Technical

# Discussions



XVII Meeting

XIX Meeting

Port-of-Spain  
Trinidad and Tobago  
October 1967

Provisional Agenda Item 20

CD17/DT/4 (Eng.)  
25 September 1967  
ORIGINAL: SPANISH

TECHNICAL DISCUSSIONS: "METHODS OF INCREASING HEALTH SERVICES COVERAGE  
IN RURAL AREAS"

ECONOMIC ASPECTS OF RURAL AREAS AND THEIR  
RELATIONSHIP TO HEALTH SERVICES

by

ALFONSO ROCHAC  
Director of Economic and Social Affairs,  
Organization of Central American States,  
San Salvador, El Salvador

## CONTENTS

	<u>Page</u>
1. <u>ECONOMIC CHARACTERISTICS OF THE RURAL ENVIRONMENT</u>	1
1.1. Population	1
1.2. The Rural Scene	2
1.3. Land Tenure	4
1.4. Agricultural Production	6
1.5. Agricultural Income	6
2. <u>OBSTACLES TO RURAL DEVELOPMENT</u>	6
2.1. Concentration of Agricultural Holdings	8
2.2. Single Crop Cultivation	8
2.3. Low Yields	8
2.4. Lack of Agricultural Credit	8
2.5. Shortage of Agricultural Extensions Services	9
2.6. Defective Marketing	9
2.7. Lack of a Health Infrastructure	10
3. <u>FACTORS FAVORABLE TO RURAL DEVELOPMENT</u>	10
3.1. Utilization of Manpower	10
3.2. Growing Social Expectations	11
3.3. Import Substitution	11
3.4. Farm Mechanization	11
3.5. External Financing	12
3.6. Technical Assistance	12
4. <u>IMPORTANCE OF THE RURAL POPULATION IN ECONOMIC DEVELOPMENT</u>	12
4.1. Marginal Population	12
4.2. The Rural Exodus	13
4.3. Low-Cost Housing Needs	14
4.4. Nutrition	15
5. <u>HEALTH SERVICES AND RURAL WELFARE</u>	15
5.1. Personnel and Medical Services	15
5.2. Environmental Sanitation	17
5.3. Community Development	18
6. <u>PROBLEMS OF FINANCING RURAL SERVICES</u>	20

ECONOMIC ASPECTS OF HEALTH SERVICES IN  
RURAL AREAS

1. ECONOMIC CHARACTERISTICS OF THE RURAL ENVIRONMENT

For the purposes of this paper, the rural population means that which is dispersed throughout the countryside or lives in communities with fewer than 2,000 inhabitants and whose main occupation is crop or stock farming, fishing, forestry, or home industries.

The subject of this universe is known as a peasant, farmer, rancher, and the like. He may be an independent farmer, a tenant farmer, a share-cropper, a squatter or agricultural laborer.

In urban areas employment takes many forms: industry, commerce, services, administrative and political activities. In rural areas the sole or at least preponderant activity is agriculture. Agriculture differs from industry in the following ways:

- It is governed by biological cycles which man is incapable of varying. The time of the harvest or the birth of animals can be neither accelerated nor delayed. In industry, on the other hand, the machine can be switched on and off.

- It is subject to inevitable accidents, which as a rule can be neither foreseen nor averted: frosts, droughts, volcanic eruptions, cyclones, diseases, and plagues.

- The investment per production unit is relatively high.

- Agricultural workers have few opportunities of becoming skilled employees.

Because of these unique features the development of rural areas is more complicated than that of urban areas.

1.1. Population

In 1965, the population of Latin America was close to 244 million. By 1970 it will be 280 million and by 1980 about 364 million. In 1900, the population of the United States exceeded that of Latin America but between 1950 and 1960 it was overtaken by Latin America and since then both the absolute and the relative population growth has been higher there. By the end of the century the population of Latin America will be almost double that of the United States.

The rate of population growth, about 3 per cent annually, is a serious problem in Latin America. A knowledge of modern family planning

methods might reduce this population growth in a few years, but such knowledge would be slow in reaching the rural population who are poor and ill-educated. The surplus rural population will therefore continue to be a serious problem in the 1980's, when jobs will be needed for the children being born today.

Since it will probably take time for the manufacturing industries to absorb this surplus rural population, agriculture will clearly have to continue to occupy a considerable part of the rural population, but it will have to be more efficient and more productive, and holdings will have to be economically viable.

The rate of population growth is higher in rural than in urban areas. Owing to the continued migration of rural dwellers to the cities, the urban population is increasing at the rate of 4.5 per cent annually, whereas the rural population is increasing at a rate of 1.5 per cent annually.

At present, between 33 and 50 per cent of the agricultural labor force in Latin American is either unemployed or under-employed.

According to the FAO the principal cause of this phenomenon is the system of land tenure. A peasant family with one or two hectares of poor land cannot obtain credit with which to undertake more intensive cultivation and lacks the schooling that would enable it to introduce the necessary changes. It can therefore use its energy for only part of the year in efficient productive tasks. To supplement his low income, the head of the household and his spouse and children must hire themselves out as piece-workers on some neighboring estate. In addition tenant farmers, sharecroppers or agricultural laborers can do little to improve the use of their labor power or increase the salaries they receive. Hundreds of thousands of these rural dwellers emigrate to the cities each year in search of better living conditions; but few of them improve their situation in the urban area. Many only exchange rural poverty for urban poverty, for industry and commerce in the cities offer them few opportunities for employment. The shanty towns encircling Latin American cities are growing, and in many places are accepted as an inevitable part of the urban scene. In some of them electricity and water services are being installed as are sewerage systems and paved roads, and, as a result, the beautiful cities of Latin America are being encircled by belts of poverty.

## 1.2. The Rural Scene

The rural environment contains natural resources, mainly land and water, as well as animals and products of the soil.

The surface area of Latin America measures 1,500 million hectares of which 989 million are under forest and 538 million are arable. Table No. 1 contains an itemization by arable, irrigated and cultivated land and natural pastures.

TABLE I  
Latin America: land use  
(in 1000's of hectares)

Country	Arable	Irrigated		Cultivated		Natural Pasture		Census year
Argentina	143,856.0	1,500.0	1.0%	33,449.8	23.3%	110,406.2	76.7%	1960
Bolivia	14,318.6	64.0	0.5	3,091.0	21.6	11,227.6	78.4	1950
Brazil	160,544.0	141.0	0.9	67,976.0	42.3	92,568.0	57.7	1950
Colombia	19,653.0	226.0	1.2	5,047.0	25.7	14,606.0	74.3	1960
Costa Rica	1,547.0	26.0	1.7	1,010.7	65.3	536.5	34.7	1963
Cuba	7,645.0	60.0	0.8	1,970.0	25.7	5,675.0	74.3	1952
Chile	14,539.0	1,363.0	9.4	4,265.2	29.4	10,273.8	70.6	1965
Ecuador	3,335.5	24.0	0.7	2,081.0	62.4	1,254.5	37.6	1954
El Salvador	1,245.9	-	-	742.3	59.6	503.6	40.4	1961
Guatemala	2,108.9	32.0	1.1	1,566.7	74.3	542.8	25.7	1962
Haiti	870.0	65.0	7.5	370.0	42.5	500.0	57.5	(An.Est.FAO)
Honduras	1,718.4	66.0	3.8	895.8	52.1	822.6	47.9	1952
Mexico	103,312.6	3,515.0	3.4	23,817.0	23.1	79,495.6	76.9	1960
Nicaragua	2,599.0	-	-	1,955.5	75.2	643.5	24.8	1963
Panama	1,371.7	14.0	1.0	1,237.0	90.2	134.7	19.8	1961
Paraguay	10,759.0	8.0	0.7	859.0	8.0	9,900.0	92.0	(An.Est.FAO)
Peru	11,415.8	1,212.0	10.6	2,596.3	22.7	8,819.5	77.3	1961
Dominican Republ.	1,731.3	135.0	7.8	1,461.2	84.3	270.5	15.7	1950
Uruguay	16,099.0	27.0	0.2	2,251.7	14.0	13,847.3	86.0	1961
Venezuela	19,177.5	246.0	1.3	5,219.4	27.2	13,998.2	72.8	1961
<b>Total</b>	<b>537,847.7</b>	<b>8,724.0</b>	<b>1.6</b>	<b>161,862.6</b>	<b>30.0</b>	<b>375,985.9</b>	<b>70.0</b>	

a) Excluding mountain and forest areas

b) Including annual and staple crops, cultivated pastures, fallow land

Source: FAO. La Agricultura en América Latina. Perspectivas para su desarrollo.

At the present time, only 162 million hectares are devoted to permanent plantations and annual crops; about 376 million hectares are natural pasture. Some of these natural pastures could be brought under the plough. Those which are not used for annual crops could be used for improved pastures, orchards, or other permanent plantations, including well-managed forests. Recent soil studies indicate that vast tracts of natural pastures and forested areas in the temperate zone could be used for agricultural purposes. The new tropical pastures open up vast horizons for livestock production in millions of hectares in the tropical zone.

In stock-raising and in the production of fruits, vegetables and other intensive crops, output is well below the level of production that might be expected at the present status of agricultural sciences.

Although 8.7 million hectares in Latin America are under irrigation, extensive tracts are still without that service and even in the areas in which irrigation has been traditionally practiced, it is at a very low technical level, and more than half the water is wasted. By improving irrigation canals and water management, output would be increased and the area irrigated extended. There are immense areas in which new irrigation works could be installed, but because of the heavy investment the new projects would require, the scanty resources available must obviously be used to improve the present use of water and soil in the existing irrigation systems.

The fishery and forestry resources are largely untapped. The development of fisheries could increase the protein intake of the economically deprived sections of the Latin American population, and exploitation of the extensive forest areas could soon increase the inflow of foreign exchange.

### 1.3. Land Tenure

The Inter-American Committee on Agricultural Development (CIDA) has published a series of studies on land tenure and socio-economic problems in seven of the largest Latin American countries: Brazil, Argentina, Chile, Peru, Colombia, Ecuador and Guatemala. A summary of the main findings are given in Table No. 2.

Among the most significant finding is the concentration of cropland in a few hands. Another important finding is that the smallest agricultural units have the highest per hectare production.

According to the CIDA studies a better distribution of water rights might be just as important as better distribution of land rights in stimulating production and productivity.

TABLE 2

NUMBER AND AREA OF AGRICULTURE HOLDINGS, BY SIZE, IN COUNTRIES  
COVERED BY THE CIDA AND OTHER SURVEYS

Country	Sub-family a	Family b	Medium multifamily c	Large multifamily d	Total
<u>Argentina</u>					
No. of holdings	43.2	48.7	7.3	0.8	100.0
Area	3.4	44.7	15.0	36.9	100.0
<u>Brazil</u>					
No. of holdings	22.5	39.1	33.7	4.7	100.0
Area	0.5	6.0	34.0	59.5	100.0
<u>Chile</u>					
No. of holdings	36.9	40.0	16.2	6.9	100.0
Area	0.2	7.1	11.4	81.3	100.0
<u>Colombia</u>					
No. of holdings	64.0	30.2	4.5	1.3	100.0
Area	4.9	22.3	23.3	49.5	100.0
<u>Ecuador</u>					
No. of holdings	89.9	8.0	1.7	0.4	100.0
Area	16.6	19.0	19.3	45.1	100.0
<u>Guatemala</u>					
No. of holdings	88.4	9.5	2.0	0.1	100.0
Area	14.4	11.3	29.7	44.6	100.0
<u>Peru</u>					
No. of holdings	88.0	8.5	2.4	1.1	100.0
Area	7.4	4.5	5.7	82.4	100.0
<u>El Salvador</u>					
No. of holdings	85.1	12.9	1.9	0.1	100.0
Area	14.9	28.2	36.1	20.8	100.0
<u>Nicaragua</u>					
No. of holdings	50.8	27.4	21.2	0.6	100.0
Area	3.5	11.5	55.8	29.2	100.0
<u>Costa Rica</u>					
No. of holdings	68.0	19.8	11.8	0.4	100.0
Area	3.2	14.2	51.5	31.1	100.0
<u>Panama</u>					
No. of holdings	53.3x	33.3	13.2	0.2	100.0
Area	7.9x	24.4	49.1	18.6	100.0
<u>Honduras</u>					
No. of holdings	64.3	27.1	8.4	0.2	100.0
Area	11.3	23.5	40.0	25.2	100.0

Land tenure and other problems connected with the inadequate land distribution are becoming more and more acute in the region, and may well be due to the population explosion, the introduction of labor-saving agricultural methods, failure to create new sources of employment and finally the rising social expectations of the peasants which are rapidly reaching a critical point.

A complete and flexible strategy for improving the agrarian structure calls for different projects and different emphasis in the plans of each country.

#### 1.4. Agricultural Production

Agricultural production has been growing more slowly than the population. The per capita increase was only 0.8 annually over the last 15 years. However, the prospects are more promising when we examine the situation in individual countries, but the increase in production in some is offset by low production in others.

By and large the per capita agricultural production has increased but only because millions of peasants have exchanged agricultural under-employment for urban unemployment. At least a part of this increase in production is due to the use of better methods of cultivation. Table No. 3 gives data on the average production per country.

#### 1.5. Agricultural Income

The per capita internal agricultural production in Latin America averaged US\$558 in the period 1963-65 as compared with US\$1,769 for non-agricultural production. However, these averages mask enormous pockets of poverty since income is unevenly divided between a small well-to-do minority and the vast poverty-stricken majority. In Latin America incomes are always lower in agriculture than in other sectors. The poverty of the agricultural sector is a much more serious problem than the averages indicate. For example, statistics for one of the largest Latin American countries show that, in 1960, 60 per cent of the families engaged in agriculture had an annual income of US\$210 or less, and the average family income in this group was US\$175.

In the same year 1 per cent of the 9 million persons in the agricultural sector in the same country declared a family income of US\$3,000.

## 2. OBSTACLES TO RURAL DEVELOPMENT

The backwardness of the rural areas in Latin America is due to the following obstacles:



TABLE 3

LATIN AMERICA: AGRICULTURAL DOMESTIC PRODUCT (PBIA) AND NON-AGRICULTURAL  
DOMESTIC PRODUCT (PBINA), PER EMPLOYED PERSON  
(Price in 1960 dollars)

Country	PBIA per person engaged in agriculture				PBINA per employed person			
	1950/52	63/65	Difference %	Annual Rate %	1950/52	63/65	Difference %	Annual Rate %
Argentina	1,320	1,856	40.6	1.3	1,835	2,091	14.0	1.0
Brazil	363	534	47.1	3.0	1,084	1,266	16.8	1.2
Chile	471	682	44.8	2.7	1,510	1,978	31.0	2.1
Ecuador	293	364	24.2	1.7	510	799	56.7	3.5
Paraguay	439	428	-2.5	-	789	736	-6.7	-
Peru	238	381	60.0	3.7	839	1,178	40.4	2.6
Venezuela	455	837	84.0	4.8	3,403	4,302	26.4	1.8
Costa Rica	709	776	9.4	0.7	1,134	1,616	42.5	2.8
El Salvador	319	404	26.6	1.8	867	1,394	60.8	3.7
Honduras	276	637	130.8	6.6	1,023	967	-5.5	-
Mexico	280	350	25.0	1.7	1,507	2,046	35.8	2.4
Nicaragua	422	593	40.5	2.6	1,032	1,346	30.4	2.1
Panama	523	699	33.7	2.3	1,374	1,989	44.8	2.9
TOTAL	410.5	558	37.4	2.5	1,441	1,769	22.8	1.6

Source: ECLA based on official statistics.

### 2.1. Concentration of Agricultural Holdings

The CIDA studies on land tenure show that in the seven countries surveyed there was a total of 5.4 million holdings occupying 489 million hectares. Of these the large holdings worked by many rural families represented only 2.6 per cent of the total number of units, but they accounted for 46 per cent of the total area. The average size of these large holdings, of which there were 138,555, was 1,626 hectares. At the other extreme, there were 2,862,662 family holdings representing 52.7 per cent of the total. They accounted for only 11.5 million hectares or 2.3 per cent of the area and their average size was 4 hectares.

### 2.2. Single Crop Cultivation

In many Latin American countries agriculture is based on the system of large plantations cultivating a single product such as coffee, sugar cane, or bananas. This system has persisted both because of the lack of the necessary services to promote diversification and because of the low purchasing power of the national consumer and the superabundance of agricultural manpower. Single crop cultivation continues to hamstring the national economies and prevent them from diversifying agricultural production, thus making them less vulnerable to fluctuations in world prices for basic agricultural products.

### 2.3. Low Yields

Concentration of land ownership has not resulted in the best utilization of agricultural holdings. In one large country in Latin America, family holdings cover 59.8 per cent of the arable land of the country and their per hectare production was worth 881 monetary units. On the other hand, the large land owners cultivate only 17.4 per cent of the land which yields only 170 monetary units per hectare.

### 2.4. Lack of Agricultural Credit

In most countries the medium and small farmer has not had access to sufficient agricultural credit. What financing there is is of the commercial type and is mainly available to the large producers. In addition, the small and medium farmer can rarely obtain technical assistance to back up such credit.

By and large, agricultural credit agencies in Latin America have had very little effect on the development of agriculture. They do not have sufficient trained personnel or physical resources or even sufficient funds to make loans. Owing to the growing importance of agricultural planning in recent years, credit agencies are making some effort

to channel their financing towards programs that are an integral part of the national development plan.

Improvements in recent years have been due to external financing and primarily to the fact that these loans were granted on favorable conditions: long-term repayment periods, low interest, initial grace periods, and amortization in national currency.

#### 2.5. Shortage of Agricultural Extensions Services

If we are to succeed in influencing a larger number of farmers to adopt improved agricultural practices, properly trained personnel to provide agricultural extension services are essential. At present there are very few trained extension workers.

Several agricultural extension systems used in advanced countries have been tried out in Latin America and, when properly adapted to the local conditions, have given very good results. Brazil has had great success for a number of years with the ABCAR system which provides technical assistance to farmers and their wives and children. The Inter-American Institute of Agricultural Sciences and FAO have been able, with relatively little money, to help strengthen agricultural extension services in many parts of the region. For several years the Agency for International Development of the United States has been contributing a large amount of money for the establishment of extension services in Latin America and for maintaining them until the countries themselves are in a position to do so.

The problem of agricultural extension services takes on a totally new dimension when we grasp the fact that its task is to improve the productivity and the living conditions of approximately 10 million medium or low-income rural families in Latin America. A reasonable target would be to provide 6.5 million of those families with credit and technical assistance between now and 1980.

The technical assistance personnel needed for that purpose have been estimated at 1 trained person for every 80 to 100 families. In view of the number of Latin American families that need assistance if production is to be increased, the number of trained personnel involved is enormous and has been estimated at 130,000 additional experts in agriculture and home economics.

#### 2.6. Defective Marketing

Latin American farmers, particularly small and medium farmers, have not had the facilities for grading, packaging, storing and selling

their products. The only products that are sold in accordance with fixed grading and quality standards and at prices regulated by the daily market quotation are products for export such as coffee, cotton, sugar and, even in the case of these products, those that benefit most from the system are usually the middlemen and not the producers. Generally speaking, there is a great shortage of cold storage facilities, silos, and warehouses of all kinds and consequently a substantial loss of cereals and fruits. Owing to the lack of cold storage facilities, livestock producers cannot store their meat and sell it at other seasons of the year when prices rise.

Because of the lack of organized markets, products pass through the hands of many middlemen in the course of distribution and sale, to the detriment of the producer and the consumer.

### 2.7. Lack of a health infrastructure

The necessary personnel to provide the rural population with minimum medical care services is essential.

Health problems are aggravated by the accelerated rate of population growth and the flight from the countryside to the cities in Latin America. The settlement in the cities of these migrants, who are either unemployed or under-employed, creates a need for basic services that can hardly be met because of their magnitude and the high cost involved.

The resulting deficiencies, besides impeding the full utilization of human resources, also lead to unrest among the population.

## 3. FACTORS FAVORABLE TO RURAL DEVELOPMENT

There are several factors favorable to the development of agriculture.

### 3.1. Utilization of Manpower

Most of the protective foods call for a high labor input. Modern studies on the production of these foods show that, with the exception of poultry farming, all the highly nutritive foods can be produced equally efficiently on family-size holdings as on large farms. Frequently the family type unit, if well organized and financed and worked by well-trained personnel, is more efficient than a large-scale undertaking.

### 3.2. Growing Social Expectations

The second positive factor is the rising expectations of the Latin American farmer and his insistent emphasis on reform. Coupled with the relative lack of new land suitable for farming and the high costs of opening up new areas, it will lead to the division of the large badly-run holdings into family-size farms. These farms can and should be devoted to the production of highly nutritive foods helpful in improving the diet of the population. Therefore, family and economically viable holdings appear to offer hope for the future. It must be recognized, however, that the problem is difficult and, to solve it, all available means must be put to use in transforming millions of poor and ignorant families into skilled agricultural producers capable of managing sophisticated farms which may and must be economically viable.

### 3.3. Import Substitution

The possibility of replacing imports of certain agricultural products and semi-finished and finished goods by products that may be produced in the region.

### 3.4. Farm Mechanization

The efficient and rapid development of agriculture production will continue to depend in large measure on the action of commercial enterprises which, when they are in the hands of progressive persons, are usually in a better position than small producers to avail themselves of technological advances in the production and marketing of products. These undertakings, organized sometimes as commercial companies, sometimes as cooperative societies, are efficient processors of fibres, wood, hides, and food articles. The ideal would be an optimum development of cooperative societies of the type that has been so successful in São Paulo, Brazil, Costa Rica, Mexico, etc., among milk producers, poultry farmers, and for fruits, wood, etc.

Under the protection of the processes of integration of the Latin American Common Market and the Central American Common Market, a broad industrial development based on the processing of raw materials is taking place in Latin America. Among the activities included in this movement are the dehydration of milk and other foodstuffs, the curing of hides, the production of fish meal, vegetable oils and textiles, the preparation of wood pulp and paper and sugar cane bagasse, the production of soap and the canning of fruit, vegetables, sea food, etc. This development is very promising because it encourages diversification of agricultural production by offering farmers the possibility of working up their products locally and thus increasing their value.

### 3.5. External Financing

The external financing of the agricultural sector in Latin American countries has become extremely important in the last five years, especially that of the IDB, the World Bank, and its associated agencies (AIF and CFI), AID, and the EXIMBANK.

These loans have been made available for farm credit programs, land settlement, irrigation, mechanization, rural electrification, housing and community development.

### 3.6. Technical Assistance

Technical assistance has been growing in importance as a supplementary tool for agricultural development in Latin America.

## 4. IMPORTANCE OF THE RURAL POPULATION IN ECONOMIC DEVELOPMENT

### 4.1. Marginal Population

In Latin America there is one segment of the rural population which lives outside the cash economy. Dr. George Hills of the University of Wisconsin has called this segment the marginal population and described it as a segment of the rural population which with few exceptions has not participated in nor availed itself of the opportunity to participate in the expanding programs of agricultural development. This segment is represented by the individual farmer who possesses a small parcel of land, the same parcel or fragment of that which his father and various generations of his forefathers had possessed and worked before him. For past generations the land he cultivates today and on which he lives meant independence and a livelihood at least equal to, if not, better than that of other farmers. However, for the present owner, who faces a new and exacting world, and is fearful of living in a society subject to constant changes and in a changing economy which appears to offer new horizons and opportunities for those who move around but which for him bring only increasing want and misery, that parcel of land represents nothing but abject poverty.

These peasants constitute the overwhelming majority both of the rural population and of the total population and represent the residue of the indigenous civilizations that flourished in pre-Columbian times. They all have the same cultural patterns, sharing a mixture of Iberian institutional regimes and regimes peculiar to Indian America, sometimes overlaid by African customs, depending on the region in which they are at present living. They share common economic characteristics; their methods of cultivation are based entirely on the kind of production factors which have been applied by peasants (their forefathers) for generations. Human labor power, at times supplemented by that of animals, utilizes the most rudimentary tools: the machete, the hoe, and ploughs, which, if they exist, are of the most primitive type. In other words, these peasants practice what modern economists have been led to call "traditional agriculture".

#### 4.2. The Rural Exodus

Unemployment or under-employment of rural workers has led them to emigrate to the large towns. They are peasants without land on which to raise even subsistence crops. They seek employment in urban areas and their emigration has given rise to a series of problems.

Thus marginal settlements known as barriadas in Peru, callampas in Chile, mocambos in Brazil, ranchos in Venezuela, and villas miserias in Argentina have sprouted in nearly every Latin American city. These shanty towns were initially settled by squatters; but in the course of time the make-shift houses were enlarged and assumed a functional role in the shanty town, and are bought, sold, and rented by "owners" and tenants. In Caracas over 35 per cent of the city's inhabitants live in ranchos, despite the construction of "superblock" apartment buildings housing 160,000 persons. In Rio de Janeiro, the population of the favelas rose from 400,000 persons in 1947 to 900,000 in 1961, representing 38 per cent of the total population of the city. In Northeast Brazil, the shanty towns of Recife accounted for nearly 50 per cent of the city's population in 1961.

In Lima the population of the shanty towns rose from 100,000 in 1958 when it was 10 per cent of the city's population to about 400,000 in 1964 or more than 20 per cent. In Argentina perhaps 10 per cent of the population of Greater Buenos Aires lives in shanty towns.

Poverty, overcrowding, and disease prevail. Social unrest is rampant. This situation is not too different in the rural areas where housing needs are even greater in absolute numbers, even though the dispersion of the population makes needs seem less apparent. There the problem compounded by the fact that the average per-capita real income is lower than in the urban areas. Consequently the priority assigned to housing in rural family budgets is usually lower than expenditure for land acquisition, food, clothing and education.

This exodus has aggravated the problem of housing in urban populations as regards obtaining shelter for families lacking sufficient and stable income to repay building loans or the rental of houses.

The urban population increased by 55 per cent between 1950 and 1960 or 4.5 annually, whereas the increase in rural areas was only 1.5 per cent a year. The Economic Commission for Latin America gives the following comparative figures:

	<u>1950</u>	<u>1960</u>	<u>1965</u>	<u>1975</u>
Urban population as percentage of total	39%	46%	49%	54%
Urban population (in millions)	61	95	115	157

The rural exodus also increases social delinquency, which takes many forms, such as crimes against property, prostitution, etc. and contributes to begging and alcoholism.

### 4.3. Low-Cost Housing Needs

According to the Pan American Union, the total housing deficit in Latin America amounted to 25 million dwellings in 1951, including 15 million rural houses and 4.2 million urban dwellings which require replacement and another 5.6 million which needed extensive repairs.

During the 1950's the impediments cited stimulated some Latin American governments to formulate policies to offset existing social problems. Chile, Costa Rica and Colombia led in public housing before 1961, but inflation, rent control, limited public funds, lack of data, land scarcity and rising land and construction costs combined to dampen the impact of government efforts in most countries. The Act of Bogota and the Charter of Punta del Este helped to stimulate better understanding of the role of housing in social and economic development.

This new orientation seems to have slowed the downward trend of the 1950's. The IDB has made a substantial contribution to this change through both its loan and its technical assistance operations. Between 1960 and 1966 housing agencies were established in nearly all countries to formulate and implement programs specifically aimed at lower-income groups.

These agencies have opened financial channels to low-income families that were closed to them, working through cooperatives, savings and loan associations, self-help and mutual assistance schemes, trade unions and municipal governments.

The volume and value of home construction in 1960-1965 (in thousands of U.S. dollars) was as follows:

<u>COUNTRY</u>	<u>NUMBER</u>	<u>VALUE</u>
Argentina	545.100	-
Bolivia	2.461	8.649.00
Brazil	37.461	3.370.00
Colombia	193.352	441.081.00
Costa Rica	13.313	60.201.40
Chile	207.082	323.373.10
Ecuador	22.962	86.683.50
El Salvador	2.915	17.280.00
Guatemala	3.582	20.100.00
Honduras	5.505	21.419.00
Mexico	336.753	56.609.00
Paraguay	11.067	25.636.30
Peru	222.361	317.229.40
Dominican Republic	19.052	86.404.90
Venezuela	138.333	795.376.50
Total	<u>1.806.684</u>	<u>2.242.578.60</u>

Source: IDB: Socio-Economic Progress in Latin America, 1966.



International assistance is helping to satisfy the demand of a rapidly growing population for houses, but government action is necessary: 1) to help finance the construction of homes for the most needy segment of the population; 2) to establish the necessary institutions; 3) to stimulate the mobilization of internal resources for this type of investment; and 4) to channel capital to alleviate the situation.

#### 4.4. Nutrition

Because of rural poverty the diet of most of the inhabitants of Latin America is deficient in proteins (especially animal proteins).

In Latin America people eat an excess of carbohydrates (starch and sugar) and too little protein. In some areas the problems are even more serious. In certain countries in Latin America, average daily availabilities of calories are between 1800 and 1900 per day whereas, according to FAO, the minimum necessary to maintain health is about 2500. In the United States and in the more prosperous countries of Europe, in Australia and New Zealand, the average caloric availability is more than 3000 per day. These figures refer only to availability, not to the actual intake and are averages.

Latin America is a net importer of foodstuffs. It spends so much on food imports that in some instances the development of industry and commerce in urban centers has been held up for lack of funds with which to pay for the necessary imported equipment and supplies. Because they have not grown rapidly enough, urban undertakings have not been able to absorb the excess rural population. In many parts of the region unemployment is widespread and is normally accompanied by inflationary increases in the cost of living.

In 1964 the member countries of the Latin American Common Market imported 965 million dollars worth of agricultural products, of which 553 million came from outside the area, including wheat, tobacco, vegetable oils, shell fish, wood pulp, meat, hides and pelts.

Local, national and international agencies have tried to solve the food problem by distributing flour, vegetable oils, powdered milk, etc. In several countries food distribution has been part of various development programs, especially community development programs. Although important, these attempts have not yet solved this serious problem.

### 5. HEALTH SERVICES AND RURAL WELFARE

#### 5.1. Personnel and Medical Services

Among the most serious health problems in Latin America are: 1) a shortage of medical and paramedical personnel; 2) a shortage of medical

care centers and the poor quality of the care provided; and 3) poor geographical distribution of available personnel and facilities.

There have been moderate increases in recent years in the physician/population ratio which for the region as a whole rose from 5.4 per 10,000 inhabitants in 1957 to 5.8 per 10,000 in 1963.

The ratio varies greatly, however, from country to country, from 14.9 to 0.7. There are three countries in which the ratio is only 3 per 10,000 inhabitants.

In most countries, medical practitioners are concentrated in the major urban centers. There is one country in which 61 per cent of the physicians practice in the capital city, giving it a ratio of 12.5 per 10,000 inhabitants. In the rest of the country the ratio is but 0.9 per 10,000 inhabitants.

There is also an acute shortage of nurses and auxiliary nurses and a lack of proper training. Although the ratio of dentists to population rose in the region as a whole from 2 to 2.3 per 10,000 inhabitants between 1960 and 1963, their number still falls short of needs. Even so, it is estimated that, to maintain the 1963 ratio, about 67,000 dentists will be needed by 1971 or 15,000 more than were practising in 1963. Another 5,000 will be needed to fill vacancies resulting from retirement, death, or other reasons.

In absolute terms there have been important increases in Latin American health facilities. There were 8,400 hospitals in Latin America in 1960 with 670,000 beds i.e., a ratio of 3.2 beds per 1,000 inhabitants. In 1964 there were 10,000 hospitals with 760,000 beds but the ratio of beds to population showed no improvement because of population growth. In order to maintain the same ratio of 3.2 beds per 1,000 persons through 1971 the total number of beds will have to be increased to 930,000.

The pattern of distribution of hospital facilities between countries and within individual countries is very unequal. In the region as a whole the number of beds per 1,000 population varied between 6.7 and 0.6. In most of the countries, available facilities were heavily concentrated in the large urban centers, which points to the urgent need to provide hospitals for the rural areas.

If the medical care possibilities of the rural population are to be increased, health facilities must be doubled. It is still a common sight in our countries, because of the absence of a rural health post or field hospital or ambulance services, to see patients being transported in hammocks and endless files of peasants queuing up early in the morning at the gates of out-patient departments.

These services cannot be wholly paid for by the beneficiaries and must, where possible, be provided free of charge. This is a social benefit to which the low-income groups are entitled.

It may be argued that this proposal is an illusion, since the real solution is to guarantee full employment, increase salaries and improve land tenure. But until these things are achieved, the State must be responsible for the health of the rural population which, so far, has been the least favored segment of the population.

## 5.2. Environmental Sanitation

Illnesses associated with poor environmental sanitation are among the principal causes of the high mortality rates in most Latin American countries.

The most prevalent of these diseases are those resulting from insufficient or defective water supplies such as gastritis and enteritis. The latest available data for 1963 and 1964 show that these two diseases are the leading causes of death in six countries of Latin America. Also ranking high among causes of death are typhoid, paratyphoid, and various forms of dysentery spread by polluted water.

The Punta del Este Conference established a goal for the 1960's of improved water supply and sewerage systems for at least 70 per cent of the urban population of Latin America and 50 per cent of the rural population. If this goal is to be achieved, these services must be provided for an additional 35 million urban residents by 1971 and 43 million persons in rural areas.

The Pan American Sanitary Bureau estimated that, in 1965, only 61 per cent of the urban population of Latin America or 75 million persons and 15 per cent of the rural population, about 17 million persons, had water services. The percentage of urban dwellers with approved water service varies from 25 per cent in one country to 100 per cent in another. There were only nine countries that surpassed the goal set at Punta del Este. In rural water supply the proportion of the population served ranged from 2 per cent in one country to 71 per cent in another, the only country to exceed the target set by Punta del Este. In seven countries less than 10 per cent of the rural population had an approved water supply.

If the general goals established in the Charter of Punta del Este are to be surpassed by 1971, service must be provided for 6 million urban residents and 7 million rural residents a year in the second half of the decade. These figures indicate the magnitude of the problem that faces most of the Latin American countries.

### 5.3. Community Development

The term "community development" denotes the process whereby the efforts of the people are joined with those of governments:

- to improve the economic, social and cultural situation of communities;
- to incorporate them into the life of the nation;
- to equip them to make their full contribution to the nation's progress.

This complex of processes is, then, made up of two essential elements: 1) the participation of the people themselves in efforts to improve their standard of living with as much reliance as possible on their own initiative; 2) the provision of technical and other services in ways which encourage initiative, self help, and mutual help and make planning and implement national development programs designed to achieve a wide variety of specific improvements.

National and regional planning must also include local planning, the study and forecasting of needs and solutions to the problems besetting smaller communities. It should strive to achieve agricultural, urban, taxation and educational reforms suited to the specific local program and take into account the local circumstances peculiar to each place and to the community and its inhabitants.

Communities are accepted as the primary nuclei, the roots of a nation. In short, as stated by Rafael Picó, "microdevelopment" is stressed as an essential complement to the "macrodevelopment" of broad national plans.

Integral rural community development programs comprise health activities coordinated by regional or national agencies and have the purpose of mobilizing the energies and resources of local communities: (a) to increase production; (b) to improve productivity; (c) to raise the standard of living; and (d) to improve the health of their inhabitants.

These programs are particularly apt for laying the ground work for social change and for the democratization of local governments through building up local leadership, cooperation, and social responsibility. Community development programs offer maximum opportunities for the exercise of the democratic process.

The arousing and development of dynamic and democratic local leadership may prove to have permeating effects on the whole society and may prove to be longer lasting in its impact than the physical works built in the process of executing a community development program.

Several community development programs have used volunteers from the countries themselves or from other countries, and they have frequently been successful in inducing peasants to contribute both labor power and money to the program. In many instances external financing has been necessary to enable community development projects to move ahead. Funds for the purpose of providing credit or establishing marketing cooperatives, loan associations and other financial undertakings have invigorated many community development programs.

By itself the establishment of a community development organization will be of little avail for, as has already been said, community development is neither a program nor an institution but an approach.

Another factor of great importance is the incorporation into the political life of the country of communities which have been excluded from it because of high rates of illiteracy, apathy, remoteness or other reasons. Community development programs may be the means by which millions of Indian peasants come to enjoy the privileges and assume the obligations of full-pledged citizens.

It has been frequently pointed out to mobilize public efforts is not enough; the creative capacity of the new so-called marginal groups must be utilized so that they can be incorporated to the integrated sector of Latin America.

Community development programs should try to cover:

1. Confirmation of titles and cadastral surveys, that is to say activities related to the evaluation, registration, and confirmation of the land and water rights of "squatters", tenants farmers, and other occupants with precarious rights of ownership.
2. Redistribution of land, including both the land purchase and redistribution programs for the first three to five years of the reform.
3. Land settlement programs, including both the installation of the basic infrastructure necessary for the opening up of new areas and the execution of supplementary development plans for the first three to five years.
4. Assistance to low-income farmers, for example loans and technical assistance in communities where tenure rights are equitably distributed.

Such programs would have to benefit at least 650,000 to 750,000 rural families a year in the next ten years.

There are no detailed estimates of the number of low-income rural families that would benefit from each of these reform programs. In some countries the national government has already established goals for this reform, but at the regional level only an estimate can be made of the content and cost of these programs.

According to one of these estimates, it would cost US\$1.5 million a year to benefit 400,000 families a year through land redistribution programs, 200,000 families through land settlement programs, and 75,000 families through confirmation of titles.

In many Latin American countries community development will not have any visible impact on economic and social development until the problem of land distribution is solved.

#### 6. PROBLEMS OF FINANCING RURAL SERVICES

In the past funds for financing many rural services have come from the national budgets or from international agencies such as the World Health Organization and the Pan American Health Organization and philanthropical foundations. Not until the establishment of the Inter-American Development Bank and the Alliance for Progress did bank financing become available.

In the last five years considerable progress has been made in solving the problems of rural areas. The successes achieved so far have been largely due to the substantial volume of financial assistance from abroad, to which the Inter-American Development Bank has made the major contribution with resources from the Social Progress Trust Fund and with its own resources.

The following table shows the distribution of international public financing for water supply and sanitation by country and source of funds:

Public External Financing for Water Supply and  
Sanitation by Country and Source, 1961-1966

(in thousands of U.S. dollars)

Country	IDB Water and <u>Sanitation</u>	IBRD <u>Water</u>	AID Water and <u>Sanitation</u>	EXIMBANK <u>Water</u>
Argentina	36,000	-	1,400	-
Bolivia	2,600	-	1,193	-
Brazil	111,210	-	22,541	-
Colombia	35,018	-	9,109	2,275
Costa Rica	1,540	-	4,900	4,500
Chile	26,645	-	4,291	188
Ecuador	20,768	-	30	-
El Salvador	9,199	-	-	-
Guatemala	8,218	-	-	-
Haiti	2,360	-	-	-
Honduras	2,550	-	1,050	-
Mexico	14,024	-	-	- 20
Nicaragua	185	3,000	-	-
Panama	2,762	-	10,356	-
Paraguay	-	-	-	-
Peru	13,660	-	8,600	6,623
Dominican Rep.	1,150	-	2,964	-
Uruguay	11,843	-	-	1,900
Venezuela	53,200	21,300	-	7,500
Total	352,932	24,300	66,434	23,006

Sources: IDB, AID, EXIMBANK, IBRD and PASB

In the period 1961-1966 the IDB approved loans for environmental sanitation programs totalling more than US\$352.9 million, which represented 75.6 per cent of international public financing received by Latin America for that purpose. Credits of the IDB in this sector generated a mobilization of national resources equivalent to US\$356.5 million. It is estimated that when current programs are completed, 20 million persons will have been provided with water and sanitation services. Another 17.2 million persons will have benefited from improvements in existing systems.

Besides its loan activities, the IDB has been instrumental in promoting the establishment, reorganization, and more efficient functioning of institutions responsible for operating and administering water supplies and sanitation systems in various Latin American countries. It has given assistance to eleven countries in establishing or improving specialized sanitary works agencies. It has also supported efforts to improve the training of the technical and administrative personnel of those agencies by sending consultants or by providing special training courses.

The IDB has also encouraged the adoption of measures to make sanitation services self-sustaining on the basis of adequate rates.

The IDB has concluded agreements with the Pan American Health Organization to coordinate the technical assistance activities of both organizations in environmental health and to offer training in sanitation engineering in various countries.

Since water services in rural areas do not consist of water systems with household connections but take the form of pumps, windmills, public baths, drinking troughs for animals, etc., such services must obviously be provided free of charge as a type of social service designed to improve conditions of life in the rural areas.

In recent years credit agencies have begun to interest themselves in the financing of the construction and equipping of hospitals and first-aid posts but so far instances of this type of financing appear to be merely pilot studies.