Housing Problems and Policies in Latin America

Housing remains a major problem in the Latin-American countries although important measures have been taken, particularly since the second world war, to improve housing conditions. This article surveys the progress made in the various countries of the region during recent years and concludes with an outline of the elements involved in a solution of the problem. Most references in this paper, unless otherwise noted, are drawn from the monthly reports of the I.L.O. correspondents in Latin-American countries. The problems it discusses are among those which are likely to be discussed at the Fifth Conference of American States Members of the International Labour Organisation, which is to be held in Rio de Janeiro (Brazil) in April 1952.

THE NATURE OF THE PROBLEM

THERE is widespread agreement among American States that the need for adequate housing constitutes one of the greatest economic and social problems. Several factors have combined to produce the present problem.

The all-pervasive cause of poor housing in Latin America is the low man-hour productivity of the region and the consequent low level of annual per capita income. In the ten South-American countries for which national income statistics are available, the average per capita income in 1949 was 170 U.S. dollars, which compares with an average income in the United States, Canada, Sweden and the United Kingdom of \$1,444, \$900, \$820 and \$775 respectively.¹ At such levels, the bulk of the income has to be used to supply the essentials

¹ UNITED NATIONS: Volume and Distribution of National Income in Under-Developed Countries (New York, 1951), p. 15.

of life. It is not surprising, therefore, that the region as a whole has not been able to achieve satisfactory standards of housing. In Latin America generally, only the upper and middle income classes can afford to pay for adequate housing without some assistance from employers or governments.

The rate of population growth is a second basic factor impeding efforts to overcome the housing shortage. The average rate of increase during the period 1920-1947 was about 1.8 per cent. per year, which is the highest rate of increase in any of the major regions of the world. Such a rapid rate of increase means not only that there are a large number of additional people to house each year, but that an ever greater amount of resources must be devoted to the production of food and clothing, rather than to increasing the supply of housing and other essential facilities.

Thirdly, during the twentieth century, particularly since the first world war, there has been a rapid and large-scale movement of population from the country to the cities, with resulting overcrowding and poorly built, insanitary slums. This movement has been due to a number of factors, including natural population increase, lack of employment opportunities in rural areas, the development of resources concentrated in particular areas (such as tin in Bolivia, copper and nitrates in Chile and oil in Venezuela) and the normal attraction of large cities. In addition, as a result of the limited development of roads and railways, there has been a tendency for immigrants to settle in the cities, most of which are on waterways, rather than to move into the hinterland.

In the fourth place, there has been an acute shortage of building materials and equipment. During the war there was a large postponement of normal peacetime building because of the unavailability of certain building materials, such as steel. Since the war demand for cement has greatly exceeded supply (in the early post-war period, for example, the cement production capacity in Latin America was approximately 0.43 kg. per capita, while the consumption rate was 15 kg. per capita).² The shortage of cement, steel, timber and house-

¹ United Nations Economic Commission for Latin America: Economic Survey of Latin America, 1948 (Lake Success, 1949), pp. 146-7.

² Francis Violich: Low-Cost Housing in Latin America (Washington, D.C., Pan American Union, 1949), p. 8.

building equipment has, therefore, made most South-American countries very dependent on imports of building materials and equipment. This in turn has increased housing costs.

An additional aggravating factor of a local character in some Latin-American countries has been the occurrence of natural catastrophes. Earthquakes have levelled entire towns in Colombia, Ecuador, and Peru, while Cuba, the Dominican Republic and other Caribbean countries have experienced destructive hurricanes.

There are, as yet, no comprehensive data available on the nature and extent of the housing need in Latin America. In the near future, however, the census of the Americas, taken in 1950, may be expected to reveal many essential housing facts, since Argentina, Bolivia, Brazil, Colombia, Costa Rica, Cuba, the Dominican Republic, El Salvador, Guatemala, Honduras, Paraguay, Peru, Venezuela and Uruguay used detailed housing questionnaires, and Haiti, Mexico and Panama included housing questions in their population schedules. Meanwhile, the Pan American Union has estimated that approximately 25 million slum or sub-standard dwellings need to be replaced in Latin America. Such a tremendous need cannot under any conditions be met at once, but through the combined efforts of workers, employers and governments, and through the use of new techniques, much can be done to relieve the worst of the pressures resulting from poor and inadequate housing. With this in view, workers, employers and governments in Latin America have undertaken a variety of programmes.

THE FRAMEWORK OF HOUSING POLICY— TOWN AND COUNTRY PLANNING

Town and country planning are essential to ensure the efficient location of communication, transport, industrial and residential facilities and the development of an urban civilisation along healthy and productive lines. Since the first world war there has been an increasing tendency in Latin America to apply the principles of town and country planning

¹ Francis Violich, op. cit., p. 8.

to public and private construction and to integrate housing projects into a planning programme.1

One of the most interesting examples of recent, comprehensive, long-range, regional planning was the indirect result of a severe earthquake that badly damaged building structures in three rich provinces of Ecuador in August 1949. The first step was the creation of a regional construction board in each province. Expert engineers and architects were employed to draw up regional plans which would minimise the risk of destruction from future earthquakes; geologists were employed to select new sites for the destroyed communities; and new construction methods were used in the rebuilding which, it is estimated, would have prevented 75 per cent. of the earthquake casualties and damage.2

Among some of the other notable examples of progressive town planning may be mentioned the following: the reconstruction plan for San Juan (Argentina) to repair the damage caused by an earthquake in 1944, which destroyed practically the entire city; the construction of a modern port town in Colombia to replace Tumaco, which was almost completely burned down in 1947; the rebuilding by the British Colonial Development Corporation of Castries, the capital of St. Lucia (Windward Islands), which was almost completely destroyed by fire in June 1948 3; and the city planning of La Paz (Bolivia) which includes the diversion underground of a river and the building of a new boulevard on the former river-bed. City planning involving housing developments has also been undertaken in several other countries, including Brazil, Honduras, Mexico, Panama, Peru, Uruguay and Venezuela.

BUILDING BY WORKERS

The traditional house of rural Latin America is of a primitive character, constructed with local materials (such as clay

ee, for example, PAN AMERICAN UNION: Reglamento de Lotificación (Washington, D.C., 1950); Anatole A. Solow: Proyecto para el Desarrollo Urbano de la Capital de Costa Rica (Washington, D.C., Pan American Union, 1949); William H. Ludlow: La Zonificación en Puerto Rico (San Juan, Puerto Rico Planning, Urbanizing and Zoning Board, 1946).

² Anatole A. Solow: "Planning and Reconstruction after Disaster", in American City (New York), September 1950.

³ Ibid.

and thatch) and without sanitary arrangements. Houses are constructed by the future occupant, often with the assistance of members of his immediate community. In the more complex and costly types of urban construction, workers' efforts have been organised largely through co-operatives, a means of obtaining dwellings for low-income groups which is becoming popular in many countries throughout the world.

Housebuilding is frequently undertaken by non-specialised co-operatives—particularly consumer co-operatives—as part of their normal functions. Thus in Colombia 253 of the 427 registered co-operatives functioning at the end of 1950 provided housing services to their members, and in Argentina the consumer co-operative of Buenos Aires, El Hogar Obrero, has included the provision of housing credit among its activities for over 45 years. The latter co-operative has built several hundred individual houses for its members as well as eight apartment buildings, of which the latest contains nearly 300 units.

Within recent years, however, there has been an increase in the formation of specialised co-operatives for low-cost housing. Housing co-operatives have played a minor, but nevertheless active, role in the housing movement in Chile, where 18 associations are at work. In Colombia there are 28 co-operatives devoted exclusively to housing activities; these have built 1,500 urban dwellings during the last four years at a cost of 18 million pesos, and one co-operative is at present undertaking a project of 700 houses in a planned community near Medellín. These activities are encouraged by the Colombian Land Credit Institute, which is required by law to assign not less than 20 per cent. of its available funds to housing co-operatives.

In Costa Rica, the Low-Cost Housing Co-operative created by national decree in 1942 and financed by a special tax on motion-picture and other theatres in the capital has undertaken to make housing available to workers earning under 250 colones a month. In Cuba workers' housing co-operatives have built about 150 units in Havana and have undertaken projects in other areas, especially the tobacco districts. In Puerto Rico, despite difficulties in raising capital and other obstacles, three housing co-operatives have recently been formed; and in El Salvador the rural credit co-operative

organisation and a mortgage bank have together formed a corporation, *Mejoramiento Social S.A.*, to buy and subdivide land and to build low-cost houses.

Labour unions have not generally entered the field of housebuilding, but in some countries they have taken an active part in the discussion of the problem and the promotion of measures to solve it. In 1950 the Workingmen's Bank of Venezuela started a co-operative housing project at a cost of some three million bolivars to provide 1,000 flats for lower-income families.

PROVISION OF HOUSING BY EMPLOYERS

Owing however to the low level of income of the average Latin-American worker, the ability of workers to provide their own housing is very limited. In a number of countries, particularly in certain industries where undertakings have considerable financial resources, housing accommodation is made available by certain employers in accordance with local tradition, collective agreement or statutory obligation.

In some cases provision of housing by employers is facilitated by fiscal measures. In Colombia, enterprises with a specified capital and payroll have been authorised to make deductions in their tax returns for sums spent on housing for employees; housing expenditure in excess of the allowable deduction for any one year may be carried over in succeeding years. It is estimated that such enterprises are spending about 2.5 million pesos annually for workers' housing. In an effort to encourage employer housing for workers, El Salvador has passed a law providing for tax exemption for workers' housing projects and abolishing import duties on materials for such construction.

Oil companies in several Latin-American countries have undertaken extensive housing development.¹ The petroleum industry in Venezuela is obliged by law and various collective agreements to furnish houses to workers in permanent working centres. By 1947 over 8,000 individual houses, blocks of flats

¹ See International Labour Organisation, Petroleum Committee, Third Session (Geneva, 1950), Report II: Social Conditions in the Petroleum Industry (Geneva, I.L.O., 1950), ch. II.

and bachelor units had been constructed by oil companies throughout the country. Houses are built according to minimum requirements established by the Ministry of Health and Social Assistance. In Mexico and Colombia, collective agreements in the petroleum industry also contain housing provisions.

In Peru more than 4,000 family-type houses and approximately 700 bachelor type quarters have been built by oil companies. The International Petroleum Company is constructing a new town in Talara, the houses being of a modern type with reinforced concrete frame and brick curtain walls. In Cuba, El Salvador, Guatemala, Haiti, Nicaragua and British Guiana ¹, which are characterised by large plantation systems of cultivation, many plantations provide housing for resident workers.

Employer housing activities have also been fairly important in Uruguay. The Central Railroad of Uruguay and employers in paper and weaving mills and packing plants have undertaken substantial housing developments for their workers. In Bolivia, the cement company of Viacha and several of the mining companies have completed housing projects for their employees, while the Coal and Industry Company of Lota (Chile) has invested 280 million pesos in housing for its workers.

GOVERNMENT ACTION

Although employers in a number of countries have contributed in many ways to the solution of the housing problem, they cannot be expected to provide all workers with adequate housing. The financial resources of many employers, particularly the small employer, are very limited; moreover, there is a large number of self-employed workers who will never be covered by any employer's housing scheme. These facts have led to the general recognition that the Government should be primarily responsible for ensuring that the country has a public and private housing programme that will eventually provide every family with adequate housing.

¹ Cf. G. GIGLIOLI: The Population and Housing Problem on the Sugar Estates of British Guiana (Argosy Company, Bel Air, East Demerara); COLONIAL OFFICE: Report of a Commission of Enquiry into the Sugar Industry of British Guiana (London, H.M. Stationery Office, 1949), ch. XVI.

Three Latin-American countries in fact have constitutional provisions with respect to government responsibility for housing. The Nicaraguan Constitution states that the Government shall encourage low-cost hygienic housing for workers. The new Panama Constitution of 1946 provides that the State shall promote the construction of low-cost housing for workers, while the Cuban Constitution requires the Government to encourage and develop low-cost housing.

Governments in Latin America have attacked the housing problem in a variety of ways—by assisting in the financing of private housing, by promoting public housing programmes, by providing for the financing of housing with social security funds, by the utilisation of prison labour, by aided self-help housing schemes, and by programmes for increasing the production of building materials and for the development of new materials from local resources. In addition, technical assistance programmes of international organisations and governments outside the region are making an increasingly important contribution to the solution of the housing problem.

The Financing of Private Housing

In Latin America generally, private firms constitute the major part of the housebuilding industry. As in most other regions of the world, mortgage finance banks have been established in a number of countries to assist in the financing of private housing. In Colombia the Land Credit Institute, founded in 1939 with a capital of 3.5 million pesos, has played an important role in promoting the construction of low and medium cost dwellings. This Institute is authorised to lend up to 4,000 pesos at 2 per cent. interest to low-income farmers whose net assets do not exceed 10,000 pesos, a maximum of 8,000 pesos to well-to-do farmers whose net assets range from 10,000 to 30,000 pesos, and larger amounts to hacienda owners whose net assets exceed 30,000 pesos, for housing of employees. For urban housing, the Institute may make loans to employees and workers whose net worth is less than 30,000 pesos.

In Mexico, a National Urban Mortgage Bank has been established with an authorised capital of 60 million pesos, a part of which is used for housing. In his 1950 message the President of the Republic stated that the Bank had financed

the building of 2,133 low-rental houses, of which 1,446 were already completed; in addition various savings and loan institutions had lent 15 million pesos during the preceding year for low-cost housing.

In Nicaragua the Mortgage Bank has been authorised to invest up to 300,000 cordobas in housing for families of limited economic means; loans are permitted up to 80 per cent. of the value of the house and for a maximum amount of 3,000 cordobas. The Guatemalan Government has made 500,000 quetzales available for low-cost housing for middle-income workers through the National Mortgage Credit Bank.

The Government of Panama has created an Urban Construction Bank with a capital of \$4 million to finance low-cost housing. The Bank is authorised to lend to persons with small incomes; these loans must not exceed 90 per cent. of the value of the building, or 7,500 balboas, and must be repaid in 20 years. The Housing Department of the Costa Rican Social Insurance Fund has been empowered to make loans to private individuals who own a building site but are without a home.

In Puerto Rico, the United States Federal Housing Administration has assisted in financing a large amount of medium-cost housing. In 1951, arrangements were completed for a series of projects costing \$33 million, one project being reported as the largest detached-dwelling project in the world, covering an area of 450 acres and composed of 4,426 detached dwellings designed to serve the needs of San Juan families with incomes ranging from \$1,200 to \$3,000 per annum.

In September 1950 the President of Guatemala approved regulations of the Institute for the Development of Production regarding loans to finance housing for low-income families. Loans may not exceed 5,000 quetzales or last more than 10 years, and are restricted to dwellings with rents below 250 quetzales a month. In Venezuela, a Workingmen's Bank was established in 1927 with a capital of six million bolivares to assist private construction of workers' housing. The Bank has financed almost 2,000 dwelling units chiefly for middle-income families. During 1949 the National Mortgage Bank

¹ Ralph L. GWATKIN: "Financing Medium and Low-Cost Housing in Puerto Rico", in the *Monthly Information Bulletin* of the Caribbean Commission, October 1951, pp. 81-6.

in Argentina made loans totalling over a million pesos, which facilitated the building of 40,000 dwellings and the purchase of 36,975 lots for the development of housing.

The Brazilian Government created a Popular Housing Foundation in 1946 to make loans for the construction or purchase of moderately priced homes. The Foundation has a capital of 2,000 million cruzeiros; preference is given to rural families employed in the production of essential foodstuffs. By 1949 the Foundation had built 3,000 new houses in the region of Rio de Janeiro, while in the country as a whole the number exceeded 8,000. The amount borrowed must not be greater than the individual can repay over a 15-year period without absorbing more than 25 per cent. of his income; only one house can be purchased or built for any one individual; and all payments are suspended during a period of unemployment or unavoidable loss of income. In 1947 it was estimated that, partly as a result of this policy, approximately 75 per cent. of the people in the three principal cities owned their homes.

In Peru, a Housing Corporation was created in 1946 to provide (among other things) financial assistance to private builders and semi-public groups for low-cost housing developments. In Uruguay the Mortgage Bank, established in 1900 to assist in the completion of several projects which had been begun in 1887, is designed to assist in the financing of private housing. In Chile, public credit for private housing has been an accepted policy since 1906, when the Government started making individual loans up to 75 per cent. of the value of the dwelling.

The principle of mortgage banking to assist in the financing of private housing has, therefore, become fairly well established in Latin America and has made an important contribution to the construction of housing, particularly for middle-income groups.

Public Housing Programmes

Most Latin-American governments have recognised that, regardless of what may be done to assist privately financed building, the average per capita income is such that a great many families cannot hope to obtain adequate housing without the financial assistance of the State. As a result many

governments have undertaken public housing programmes to alleviate the serious housing shortage.

Uruguay has established a National Housing Institute to construct low-cost dwellings for rental or sale and to supply related community facilities such as clinics, recreation buildings and public laundries. The Institute serves employees with salaries of not more than 100 pesos a month; the cost of these dwellings must not exceed 4,000 pesos; interest is set at 3 per cent.; and amortisation extends over a 30-year period. In the fall of 1951 the Institute presented a detailed programme providing for the construction of 117,000 houses at a cost of 1,180 million pesos over the next 25 years.

In Costa Rica, a Housing Department has been established as a part of the Social Insurance Fund with powers to encourage, promote, finance and construct low-cost housing by various means. The Department has completed a large community project in San José, the capital, as well as a small project of 20 dwellings in Heredia.

The Chilean housing agency, the Workers' Housing Fund, places emphasis on direct public housing rather than on loans to individuals. The Fund is governed by a Council representing a wide range of national interests and is financed by a variety of methods. The national budget provides a certain amount of working capital; in addition, industrial and mining companies earning more than 50,000 pesos a year are required to invest 5 per cent. of their annual profits in the Fund. Private companies, however, have the alternative of investing their profit directly in workers' housing. The national law also requires municipalities to set aside 5 per cent. of their liquid assets for the construction of houses for wage earners and salaried employees. During 1949 the Workers' Housing Fund was responsible for the construction of 2,700 buildings, costing 360 million pesos and capable of housing 14,450 persons. Another 4,859 houses were under construction in 1950.

In 1947 the Chilean Government established an Emergency Housing Foundation to alleviate the most acute housing needs by providing a semi-permanent type of construction. Financed mainly by two special appropriations of 45 million pesos, the Foundation has completed a number of housing projects, including as a rather special feature various social services. The Chilean Government also appointed a Housing

Committee, which has presented a broad programme proposing that 18,000 to 20,000 houses should be built each year with the financial help of the Social Insurance Fund and private funds in order to alleviate the critical housing situation.

In Paraguay, there is a National Housing Council of five members, with responsibility for the control and development of housing. The Council has financial resources of its own and may in addition issue bonds up to 100 million pesos for housing construction. A special housing programme has also been undertaken for public employees under the auspices of the Institute of Social Welfare.

Colombia has engaged in public housing under three major programmes.1 The Land Credit Institute may build rural dwellings for rental to farm labourers who are not landowners, the annual rent not to exceed 3 per cent. of the investment cost plus 1 per cent. for maintenance. also construct large blocks of flats to sell or rent to workers or middle-class families. Endowed with a capital of 3.5 million pesos in 1939, additional resources for the Institute were provided in 1946 by a law which required certain categories of taxpayers to invest 5 per cent. of their incomes above 10,000 pesos a year in its securities; recently, however, it was decided that the Institute could retain only one-half of this 5 per cent. In June 1949 the balance-sheet of the Institute showed investments of 33 million pesos. It is estimated that approximately 10,000 houses have been built by means of the Institute's loans and investments, principally for middleincome farmers and workers.

A second programme has been launched by the Colombian Government through the Rural Hygiene Campaign organised by the Coffee Federation in 1942. The Federation obtains its revenue from a 0.6 per cent. export tax on coffee, which is paid half in money and half in coffee, the latter being then sold on the market. Funds are used for new housing, improving sanitation in existing houses and fumigation with D.D.T., and are distributed according to the level of coffee production in the various territorial departments over the last three-year period.

¹ International Bank for Reconstruction and Development: The Basis of a Development Program for Colombia (Washington D.C., 1950), ch. XI.

Thirdly, municipalities in Colombia having tax receipts of 25,000 pesos a year and over are required by law to devote a percentage of their revenue to home construction. Those having from 25,000 to 50,000 pesos must set aside 3 per cent.; those having from 50,000 pesos to 100,000 must earmark 4 per cent.; those having over 100,000 pesos must spend 5 per cent. on housing.

On the basis of the report of the International Bank for Reconstruction and Development ¹ the Colombian Committee for Economic Development has recommended that the Government should undertake a five-year low-cost housing programme costing 800 million pesos, to provide 102,000 urban dwelling units and 90,000 rural dwelling units. Although it recognises that such a programme will not fully meet the accumulated housing need, the Committee does not believe that the Government can do more with the resources available.

In Bolivia, the Workers' Housing Fund has launched a nation-wide housing programme. Two projects of over 100 dwelling units have been completed in La Paz, and other housing projects have been carried out in smaller cities. The Argentine Government has created a National Housing Administration with broad authority to construct low-cost housing for urban and rural workers.

Peru has created an independent public body, the Housing Corporation, to carry out a 50-year housing programme for the entire country. The law provides for the gradual elimination of sub-standard housing through replacement by direct public construction and through loans to private builders and public groups. The initial working capital of the Corporation has been set at 100 million soles.

In Guatemala, the public housing problem has been dealt with in two ways. The Ministry of Transport and Public Works has constructed a number of houses in the Workers' Colony for the National Mortgage Credit Bank, and the Guatemalan Development Corporation started construction at the end of 1949 under a countrywide plan of low-cost housing. In 1950, 600 model homes were being built near the capital to house the families who had suffered most seriously from the storm in October 1949. The Government has also created a Rural

¹ The Basis of a Development Program for Colombia, op. cit.

Housing Section in the Ministry of Public Health and Social Welfare, but no rural building programme has as yet been undertaken.

The Cuban Government launched an attack on its housing problem in September 1950 by establishing a National Housing Commission with the object of encouraging the construction of low-cost dwellings. In Mexico, the President of the Republic took an important step in May 1951 by issuing 100 million pesos of national savings bonds for the construction of workers' dwellings.

In Venezuela, the Workingmen's Bank has received an appropriation of 200 million bolivares from the Government and work started in 1951 on the construction of 12,185 low-cost housing units. The project is to be completed in four years at an estimated cost of 50 million bolivares a year. In May 1950 the Governor of British Guiana announced that the United Kingdom was contributing one million U.S. dollars for urban housing and \$650,000 for rural housing, including housing on sugar estates.

In December 1950 the Social Welfare Institute in El Salvador was reconstituted as an institute for the promotion of urban housing for low-income families. It takes over the capital of the former Institute, and this will in future be increased by government grant.¹

Governments in the Caribbean region have undertaken a number of noteworthy public housing programmes in recent years. In Haiti the Government inaugurated a programme in January 1951, which provides for the construction of 15 working-class housing estates in different parts of the country. The United Kingdom has provided a grant of £45,000 for the repair of 2,452 houses damaged in two hurricanes which struck Antigua in August 1950; repairs have now been completed and further action to rebuild the 1,400 houses which were completely destroyed is now in process of formulation.² In Jamaica £117,923 has been obtained from the Agricultural Loan Societies Board to finance a rehabilitation programme, and the Government has granted subsidies of £51,000 to compensate

¹ Revista de Economia de El Salvador, January-December 1950, pp. 155-63; see also Pan American Union: La Vivienda en El Salvador (Washington D.C., 1950).

D.C., 1950).
 Monthly Information Bulletin of the Caribbean Commission, April 1951,
 pp. 726-7.

for the high cost of construction, providing the cost of each house does not exceed £200. An emergency housing programme has been started in Western Kingston. Legislation has been passed in the Leeward Islands for the control of new housing sites, land has been acquired and surveyed for redevelopment of the worst urban slum areas and housing projects are planned. The Government has purchased about 4,000 acres of land in St. Vincent for settlement purposes and the construction of three model villages is well under way. In Trinidad and Tobago, 1,409 dwelling units in six housing settlements and 144 apartments in slum areas have been completed since the war.

In the Dominican Republic the Government has for a number of years been repairing the destruction caused by the hurricane of 1930. The buildings hastily put up in the capital, Ciudad Trujillo, are gradually being replaced, the Santo Domingo District Council having appropriated 70,000 pesos for the construction of a new workers' housing project. About 300 houses have been built by the Government for sale at 2,300, 1,400 and 650 pesos, with payments extending over a ten-year period. The Government has announced its intention of building 25,000 additional dwellings.

Other Methods of Finance

In some Latin-American countries, social security funds have been used to help finance special institutions for low-cost housing, while in other cases social security agencies have engaged directly in house construction.

Perhaps the most extensive social security housing programmes are to be found in Brazil, where since 1931 six pension funds have invested large sums of money in housing for their contributing members. The Industrial Workers' Retirement and Survivors' Pensions Institute has undertaken the largest programme, its biggest project being a community of 2,300 dwelling units including a shopping centre, kindergarten, theatre, club house and school for 3,000 children. The number of low-cost houses constructed by social security institutions rose from 12,000 in the period 1934-45 to 48,000 between 1945 and June 1950. In 1951 the Industrial Workers' Institute announced its decision to finance the construction of 25,000 additional flats for the benefit of its members.

In Uruguay, social security funds were first used for housing in 1921. In the case of homes financed by the Retirement Pensions Fund the title passes to survivors in the case of death of the head of the family. The Mortgage Bank, the Bank of the Republic and the Retirement Pensions Fund have also been authorised to make joint loans to building companies undertaking low-cost housing construction. Loans are permitted up to 85 per cent. of the total cost, on condition that the dwellings do not cost more than 7,500 pesos and that they are built in planned communities of the garden-city type with lots not less than 250 square metres in area.

Argentine legislation permits the National Retirement and Survivors' Pensions Fund for Railroad Employees to lend up to 40 per cent. of its reserves for house construction. Loans are limited to 2,000 pesos and houses may not be sold without the consent of the board of directors of the Fund. The National Social Provident Institute has also been authorised to extend mortgage loans to persons who are participants in the Fund; these loans carry a very low rate of interest and are amortised over a long period.

In Panama the Social Insurance Fund provided the Urban Construction Bank with a large part of its capital of \$4 million in 1944, and in addition the Fund has carried on its own building programme now totalling approximately 500 dwelling units. The Fund may also make loans up to a maximum of 15,000 balboas to contributing members for the purchase, construction or repair of houses, payments on such housing loans being adjusted to a predetermined scale based upon the age of the applicant.

In Chile a Decree of 1945 required the various provident funds to invest 25 per cent. of their annual budgets in low-cost housing. Such investment may be made through the Popular Housing Fund established in 1943 or it may be done by making individual loans to non-profit societies. During the last ten years in Costa Rica, the Social Insurance Fund has constructed or bought 372 workers' homes valued at 7.5 million colones; 1.5 million colones were spent on low-rent house construction in 1951, and it was expected that another 1.5 million colones would be set aside in the budget of the Institute for 1952.

In Mexico, the Government Retirement Fund and the various social insurance funds constitute one of the major

sources of capital for the Housing Development Bank which the Government has created to attack the housing problem. In the summer of 1950 the Civil Pensions Directorate completed the President Alemán Urban Centre, a development project costing \$2,400,000 (U.S.), covering ten acres in Mexico City and containing 1,080 flats in six 13-storey and six three-storey buildings. In September 1950 the various Mexican insurance undertakings announced further plans to spend 50 million pesos for the construction of 2,700 houses to help relieve the acute housing shortage. In Bolivia the Social Security Institute has been empowered to make housing loans to its members; in Ecuador, pension funds may grant mortgage loans to their participants; in Cuba, the Sugar Industry Retirement Fund is authorised to sell houses to members at cost price.

A contribution to the solution of the housing problem in Costa Rica is being made through the prefabrication of dwelling units by prison labour. A simplified housing design has been selected and work is done by prisoners on a voluntary basis under the supervision of engineers and foremen of the Housing Department. Houses are produced at the rate of two a day and transported in sections to the site where they are erected by trained crews—also prisoners. The Housing Department pays a small wage to each labourer, which is divided into three equal amounts, one being given to his family, one being used for the improvement of his diet and one being given as pocket money. For each four days of work the prisoner's sentence is reduced by one day; at the end of his sentence he has been trained as a skilled building worker, thus adding to the country's supply of skilled manpower. The cost of a two-family house produced in this way was about \$1,400 (U.S.) including land and improvements in 1950.2

" Aided Self-Help Housing "

In an effort to cope with the threefold problem of high building costs, the shortage of imported building materials and limited finances, several governments have developed an effect-

¹ Anatole A. Solow: "Largest Housing Project in Mexico", in American City (New York), November 1950.

² Vivienda y Planificación (Pan American Union), March 1950, pp. 24-5.

ive method known as "aided self-help housing". The most extensive experience with this technique is to be found in Puerto Rico, where over 20,000 families have already been resettled in 165 rural communities and a lesser number of families have been resettled in urban communities.

To relieve urban housing pressures, the Puerto Rican Housing Authority acquires suburban land, installs sanitary facilities and roads, leases adequate plots to low-income urban and suburban families and helps them to move or make little shacks on the plots for temporary use. Then, with the assistance of the Housing Authority, the families undertake to improve these shacks or to replace them by better houses. Various methods are used, but all involve the principle of aided self-help. The rural aided self-help housing programme, under the direction of the Social Programmes Administration. provides unskilled landless peasants and farm labourers with plots on perpetual lease where garden crops can be grown, moves their shacks to the plots and helps to organise an improvement co-operative for the settlers. With technical assistance and small loans for machinery, the co-operative then brings in the water supply and builds latrines, produces building blocks and constructs new houses for the settlers. The finished houses of 30 square metres of area with three rooms can be built at a cost of only \$300 (U.S.) per house (1950 figure).²

To organise a community on a self-help basis, a group of from 12 to 15 families is formed. Study and discussion meetings are held in order to develop an understanding of the programme and create a proper attitude, both of which are essential for the continuous and strenuous effort required in a housing project. The settlers are then organised in smaller

¹ Jacob L. Crane and Robert E. McCabe: "Programmes in Aid of Family Housebuilding: 'Aided Self-Help Housing'", in *International Labour Review*, Vol. LXI, No. 4, April 1950, pp. 367-74. See also paper prepared by Jacob L. Crane for the Fourth West Indian Conference (1950): "Improvement of Shelter and Home Environment".

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² Luis Rivera-Santos: "A New Approach to Low-Cost Rural Housing in Puerto Rico", in Monthly Information Bulletin of the Caribbean Commission, July 1950, pp. 422-4; United States Housing and Home Finance Agency: Aided Self-help Shelter Improvement in Tropical Puerto Rico (Washington, 1950) and Administration and Costs of Aided Self-help Shelter Improvement Projects in Puerto Rico (Washington, 1950); Puerto Rico Planning Board: Housing in Puerto Rico (Santurce, 1950). See also Jacob L. Crane: "Workers' Housing in Puerto Rico", in International Labour Review, Vol. XLIX, No. 6, June 1944, pp. 608-9.

groups so as to have a minimum of three men working on the project daily; everyone is occupied on the project on Sundays.

The first step in actual construction consists in building a shed where a simple and easily operated concrete block-mixing machine is installed, and where cement and other construction materials can be stored. Next, the heads of the families themselves start to produce concrete blocks under a minimum of government supervision. After all the blocks required for the project are made, reinforced concrete foundations are built with the assistance of a concrete-mixing machine. Experience in Puerto Rico has proved that if proper methods and techniques are used the wholehearted co-operation and interest of unskilled farm labourers and their families can be obtained and maintained throughout the time necessary to complete the project. Though their efficiency may be low, there is enough ability to develop rapidly the necessary skills.

Jamaica Welfare Ltd. has engaged in a successful self-help scheme under which 23 houses were built at an average cost of £160. The Jamaican Central Housing Authority helped to draw up estimates and specifications and a local officer of the Authority visited the houses during construction. As these houses were built under the Hurricane Rehabilitation Plan, one-third of the cost was financed by a government grant, the balance being made available on a 20-year loan at 21/2 per cent. A materials pool was created to make bulk purchases of supplies. Members of the self-help enterprise were given preliminary training in housebuilding six months before work started, so that the work could progress unimpeded once it had begun. The householders were then organised into building groups of six, working in turn on the members' houses an average of three days each week except when this was impossible because of agricultural tasks. The owners' labour was credited to them (less deductions made for a daily meal) at government rates of pay. Six master carpenters were given contracts for the project and eleven assistants were used in building the kitchens and latrines. The materials contributed by the householders amounted to nearly one-third of the materials purchased, while the labour contributed was equal to more than one-third of the paid labour.1

¹ United Nations: Survey of Problems of Low-Cost Rural Housing in Tropical Areas (Lake Success, 1950), pp. 42-6.

A third interesting aided self-help housing project has been undertaken on the island of St. Vincent, where almost an entire village of 1.000 inhabitants was moved at a cost to the Government of only £2,400.1 The success of this scheme was attributed to four principal features. The Government provided freehold house sites. Building materials were made available to prospective house-owners in limited amounts at cost price, subject to repayment by monthly instalments over a period of years. Installation of a latrine unit, provided at cost price subject to monthly repayments, was compulsory. An adequate water supply with additional amenities such as a bathhouse and laundry site was installed. this scheme each man, with the assistance of friends, moved his house from an unsuitable site at the foot of a volcano to a well-planned village on some 40 acres of fairly level ground.

In Trinidad, the Planning and Housing Commission is sponsoring a village housing settlement scheme on land given by the sugar estates. Applications were invited for the lease of approximately 234 lots varying in size from 5,000 to 18,700 square feet. Of the 86 buildings erected or in the course of erection in 1950, 19 were of concrete or brick (costing from \$600 to \$1,200 or more), 52 were of tapia (costing from \$300 to \$500), and 15 were of cheap materials (costing about \$100). A great deal of communal labour is employed on Sundays. Five or six men get together and cast all the pillars for one house; on the following Sunday they do the same for another house, and so on.²

A recent mission of experts which visited Antigua to investigate the rehousing problem after two hurricanes in 1950 has strongly recommended that the Government should undertake an aided self-help programme for the rebuilding of 1,400 houses that were completely destroyed. A British West Indies Housing Conference held in Barbados in June 1951 concluded that aided self-help schemes represent

¹ "Housing in Saint Vincent", in *Corona* (London), February 1950, pp. 72-3.

² Monthly Information Bulletin of the Caribbean Commission, October 1950, p. 511. Cf. Report of the Planning and Housing Commission for the Year 1949 (Trinidad and Tobago, Government Printer, 1951).

³ Monthly Information Bulletin of the Caribbean Commission, September 1951, p. 41.

the most economical method of providing housing for poor people, and recommended that the increased use of such schemes and their introduction into territories where they have not yet been tried out should be urgently considered by governments.¹

THE PROBLEM OF BUILDING MATERIALS

One of the most serious obstacles confronting most Latin-American countries has been the shortage of domestic building materials. The resulting dependence on large imports of building materials with high costs for freight rates, landing charges and customs duties has offset to a great extent the lowness of wage rates in the construction industry and has helped to keep housing costs out of reach of low-income families.

Detailed figures for the production and import of building materials in the Latin-American countries are not generally available except for cement production; these, however, give some indication of the level of activity in housing and construction.

Cement production in all Latin-American countries for which data are available ² has increased substantially above pre-war levels. Progress is most outstanding in Venezuela and Puerto Rico, where the monthly production in 1951 was 14 and 11 times, respectively, as high as in 1939. Production in Ecuador and Guatemala was, respectively, 5 and 6 times the pre-war level, while marked increases have also been registered in Argentina, Brazil, Chile, Colombia and Mexico.

A number of investigations and experiments are being conducted with a view to developing improved and lower-cost building materials. In Barbados houses have been built using panels of sugar cane waste (bagasse) encased in concrete—a form of construction which has already been used with some success in Indonesia. The use of bagasse for making wall-board is also being examined in several Latin-American countries. The possibilities of developing a cheap hand or power-driven concrete block-making press such as has been used with

¹ Monthly Information Bulletin of the Caribbean Commission, September 1951, p. 38.

² See United Nations, Monthly Bulletin of Statistics, July 1951, pp. 67-70.

advantage in recent low-cost housing projects in Africa are under consideration in several countries. Exploratory work is also under way with a view to developing the large timber resources in some of the Latin-American countries.¹

TECHNICAL ASSISTANCE

One of the most important post-war developments affecting workers' housing, particularly in the underdeveloped countries, has been the establishment of various technical assistance programmes. These have been designed to assist governments to help themselves by making available experts and technicians and by providing host facilities for fellowships and training programmes. In this way, governments can obtain assistance concerning those aspects of the housing problem which present particular difficulties.

Three major technical assistance programmes are at present in operation in the Latin-American region: the expanded programme of technical assistance of the United Nations and specialised agencies, the Pan American Union technical assistance programme and the Point Four programme of the Technical Co-operation Administration of the United States Government; these programmes are being carried out with close co-operation between the respective authorities.

Acting on the basis of resolutions adopted by the Economic and Social Council and the General Assembly in 1949, the United Nations and five specialised agencies (the International Labour Organisation, the Food and Agriculture Organisation, the United Nations Educational, Scientific and Cultural Organisation, the International Civil Aviation Organisation and the World Health Organisation) have established a fund for an expanded programme of technical assistance to underdeveloped areas.² Several housing projects are already under way or are in the planning stages under this expanded programme.

¹ For a review of building material problems and prospects, see UNITED NATIONS: Survey of Problems of Low-Cost Rural Housing in Tropical Areas, op. cit., ch. 2.

² See Technical Assistance Board: The Expanded Programme of Technical Assistance for Economic Development of Underdeveloped Countries (New York, 1951).

The United Nations has sent a housing expert to Brazil for three months to study and make recommendations on rural housing, and another expert to El Salvador to assist the Government in the reconstruction of housing in towns damaged or destroyed during the recent earthquake. The United Nations has also received requests from Brazil, Chile and Uruguay for the grant of fellowships in the field of building, housing, and town and country planning, and a request from Paraguay for expert advice on the economic aspects of low-cost housing. In addition, the United Nations provides a number of services in the field of housing with special interest to the less developed countries, including a reference centre on housing and town and country planning which collects, analyses and indexes reference material and prepares bibliographies and abstracts for dissemination, a catalogue of films on building, housing and town and country planning, and the publication of various reports now completed or under way, such as a handbook on tropical housing, reports on methods of measuring housing. needs, methods of preparing programmes of housing and public construction, methods of financing housing, environmental hygiene and sanitation in rural areas, and technical and economic studies on community development and neighbourhood units with special reference to rural areas.

The principal project of the Pan American Union has been the establishment of an Inter-American Housing Research and Training Centre in Bogotá (Colombia), which was scheduled to start operations in October 1951. The Housing Centre will conduct research on materials and construction methods (with emphasis on local materials, such as native woods, minerals, fibres and plastics), on the planning and design of minimum types of dwellings for urban and rural housing in tropical and other climates, and on the problems of housing management, administration and financing. The Centre will accept trainees and will be prepared to render technical assistance to governmental or non-governmental agencies. So far 14 countries have officially indicated their intention to participate in this regional project.

In Costa Rica, the Pan American Union has assisted in the establishment of a modern city planning office in San José, the capital, which is the first of its kind in Central America. Substantial progress has been made by this office in the prepa-

ration of a master city plan and in obtaining its adoption by the municipal council. In a field study carried out for the Urban Housing Institute of El Salvador, the Pan American Union has recommended systematic procedures for the selection of sites and the planning and design of large-scale housing projects. In Ecuador, it has provided a three-man technical assistance mission to assist in the reconstruction and rehabilitation of the areas devastated by the earthquake in 1949. It has also organised "housing round tables" at three regional seminars on social affairs, which have contributed to the interchange of information and stimulation of housing programmes in the region.

The Point Four programme of the United States Technical Co-operation Administration (T.C.A.) has a wide range of activities under way in the Latin-American region. In response to a request from the Caribbean Commission, the T.C.A. has, with the concurrence of the governments of the United Kingdom, France and the Netherlands, approved a plan for making available the services of two experts in aided selfhelp housing for a period of two years. This two-man team will assist the local governments in developing pilot projects, testing local building materials, developing on-the-job training programmes and demonstrating how people can build and finance houses for themselves. The project also provides for making available a small amount of demonstration equipment, such as portable block-making machinery, cement-mixers and hand and power tools, to be assigned to the Commission for loan to local governments.

A contract is in effect between the T.C.A. and the Puerto Rico Planning Board to permit Antiguan officials and community leaders to study the aided self-help programme in Puerto Rico, and to obtain the help of Puerto Rico Social Programmes Administration personnel in organising and carrying out a housing reconstruction programme in Antigua. The T.C.A. is also studying a building materials development project in Brazil which, it is hoped, will become a centre for testing and demonstrating methods of producing construction materials from native resources.

¹ Rodrigo Masis: Proyectos de Viviendas Económicas para San Salvador (Washington, D.C., Pan American Union, 1950).

The T.C.A. has received from the Chilean Government a comprehensive request for technical assistance in the rationalisation and standardisation of the manufacture of construction materials, the training of specialised workers and the provision of some machinery for this purpose, the modification of legal requirements and regulations governing public works, the co-ordination of various organisations and elements involved in the housing problem and, finally, a study of the organisation of the internal services of the Chilean Housing Fund. The Government of Ecuador has asked for a housing administrator to continue the administrative, organisational and supervisory work started by the Pan American Union mission in the earthquake area, an engineer-instructor to introduce and develop low-cost construction methods, and a programme analyst to advise local agencies in over-all planning and financial methods. It is expected that the planning and organisational functions being carried out by the Pan American Union three-man housing reconstruction mission in the Ambato earthquake area will end on 1 January 1952 and will be transferred to the Point Four assistance programme.

The Peruvian Government has requested T.C.A. assistance in the fields of building codes, building materials production, low-cost housing, slum clearance and urban redevelopment. Interest has also developed in obtaining the services of town planning experts to assist in the organisation and curriculum of a graduate School of Urbanism, which would be a regional organisation for the benefit of other South-American countries as well as Peru. Point Four technical assistance is being planned in the field of town planning for the Managua area of Nicaragua. The T.C.A. has also received requests from Guatemala, Costa Rica and Colombia for fellowship grants in the field of housing.

ELEMENTS IN A SOLUTION OF THE PROBLEM

The housing situation in all Latin-American countries is unquestionably critical. Moreover, it is not a situation which admits of a simple and immediate solution. An increase in the capital stock of a country, of which housing is a major component, can be achieved in three principal ways. First of all, an economy can curtail its consumption, increase its

volume of saving and divert resources from the production of consumers' goods to the production of capital goods. This will be especially difficult in Latin America because the level of income in all countries is so low and the pressure for consumption is so great that the margin for additional saving is relatively small. In many cases, however, methods can be developed to mobilise for more effective use such savings as may be available.

Secondly, capital may be imported from abroad. Imports of capital are, however, usually for undertakings whose operations add to the supply of foreign exchange (by increasing exports) or reduce the need for it (by producing goods which would otherwise have to be imported). Housing is unlikely to contribute substantially to either of these objectives, except where it is an essential part of a large-scale development project.¹

pressures.

The Bank stated that it did not believe that housing projects usually belonged to the high-priority group of projects covered by this statement. It would be disposed to assist in the financing of the construction of housing only in a case in which housing was a small but essential segment of a high-priority development project in the financing of which the Bank participated, particularly if it could be assumed that the investment was likely to lead in due course to a high level of domestic savings and to additional foreign exphange courses.

exchange earnings or foreign exchange savings.

The Bank made it clear, however, that it was not unaware of the important part which housing must play in the sound economic development of all

¹ In this connection, it is interesting to note that the I.L.O. Building, Civil Engineering and Public Works Committee at its second session, in March 1949, invited the Governing Body of the Office to examine the desirability and possibility of establishing, under the control of the International Bank for Reconstruction and Development, an International Institute for Building Loans, the functions of which would be to collect private savings by the issue of bonds where such savings exist, with a view to making mortgage loans for housing construction, especially for the lower-income groups in countries in which there is a shortage of capital. On the instructions of the Governing Body, the Office consulted the International Bank concerning the proposal Although the Bank did not feel able to pass final judgment on the proposal solely on the basis of the information given in the resolution, it pointed out that the project involved the utilisation of international financing to meet domestic expenditures. Since the Articles of Agreement permit the Bank to make loans for this type of expenditure only "in exceptional circumstances", the Bank, as explained in its Fifth Annual Report, makes local currency loans only "(a) if the project to be financed is of such economic urgency that the country's ability to undertake foreign borrowing—which is more or less limited in all cases—is better utilised in financing this project than in financing the direct foreign exchange costs of alternative projects; (b) if the local currency costs of the project cannot reasonably be met out of available domestic resources; and (c) if it is apparent that, unless foreign exchange is made available to the borrowing country to be employed for the import of either consumer goods or raw materials, the local currency expenditures involved in the project will lead to inflationary pressures".

Thirdly, labour and other resources at present unemployed or underemployed may be utilised to increase capital formation without curtailing the level of consumption. To accomplish this without generating inflationary pressures, however, requires a carefully formulated economic policy.

Even if the volume of capital formation can be increased in one of the above ways, the increase cannot all be devoted to housing. Expenditures on housing must be balanced against other urgent economic and social needs, such as factories, industrial equipment, power, and essential public facilities including transport, communications, health and education. It is in fact doubtful whether a marked permanent improvement in the housing situation can be achieved until much more progress is made in the economic development of the region. Housing is an element in the life of a people which depends basically on the productivity of the country, and it is not to be expected that housing in the underdeveloped countries can be brought up to the levels enjoyed in the highly developed countries without commensurate economic development.

Although there exists no quick and easy solution to the housing erisis, it is important that the problem should be tackled with all the energy and imagination available. The situation clearly calls both for immediate action of an emergency character to alleviate the present acute shortage and for long-range programmes to provide adequate housing for the whole population.¹

An Emergency Programme

The objective of the emergency programme should be to produce in the immediate future as many new houses as possible. Every family that is able to obtain better housing here and now instead of in a decade or two hence represents

countries. It pointed out that its lending operations to finance either foreign exchange or local currency expenditures of high-priority investment projects normally resulted in an increased volume of total investment. In consequence, local resources may be set free which could be devoted to housing development. Thus, its loan operations may indirectly have a beneficial effect upon the volume of housing construction.

¹ For a broad discussion of housing policy see International Labour Office: Housing Policy (Montreal, 1945) and Housing and Employment (Geneva, 1948).

a net social gain. Moreover, if a family can acquire a share of ownership in a new house (no matter how modest) and a small plot of ground for cultivation, it will have a greater incentive to improve its position. Furthermore, the spirit of industry and the habit of saving which find encouragement in such an environment will accelerate the processes of economic development and hasten the time when the economy will be able to provide adequate permanent housing for everyone.

In formulating an emergency programme to cope with the immediate shortage, at least seven major factors need to be considered. The first point of emphasis may well be upon the greatly expanded use of low-cost, locally available materials. Housebuilding is at present dependent to a substantial extent on imported building materials, such as cement, steel and timber, which are currently in short supply and which, moreover, require large amounts of foreign exchange. Increased use of local materials may sometimes involve somewhat inferior and less permanent types of construction, but in the present situation every effort is needed to stretch money and materials to the utmost.

In spite of all that governments may do to increase the domestic supply of building materials, most countries are likely to have to import such materials in considerable volume for some years to come. A second important step would, therefore, be to increase the supplies of such materials available to Latin-American countries in the present tight international market. In this connection, it should be noted that the General Assembly of the United Nations at its Sixth Session asked the Economic and Social Council to request "governments of countries supplying building materials to give some priority to orders connected with the construction of economical housing for low-income groups".

Thirdly, intensive efforts are required to develop and extend methods of low-cost house construction, especially those methods which effectively utilise the labour of the home-owner. One such method is the aided self-help technique, which would appear to have wide potential applicability in most Latin-American countries, particularly in rural areas. To achieve the maximum results with this technique, it may be necessary in many countries to develop new forms of

community organisation.¹ Another method is through housing co-operatives, which have already been successfully operated in a number of countries, including those of Latin America.²

In the fourth place, immediate changes in land tenure systems may be needed to provide an incentive for workers and their families to spend their time, energy and income in improving their housing accommodation. At the same time, steps may be needed to curb land speculation, which places serious obstacles in the way of the extended application of low-cost methods of construction, particularly in the suburbs of large cities.

Fifthly, to rehouse the greatest possible number of families within the next few years, governments, employers and workers may have to be temporarily satisfied with housing standards that are somewhat lower than those towards which Latin-American countries aspire in the long run.

In the sixth place, to ensure that available resources are devoted to essential rather than to luxury housing, governments might consider the adoption of measures to control the use and allocation of scarce building materials.

Finally, the problems of financing will need to be reexamined closely with an emergency programme in mind. New local, regional and national arrangements may be required to utilise fully the potential financial contributions which workers, employers and governments can make. In many cases, only a relatively small amount of financial assistance by the central government in the form of loans or grants may be needed to set in motion local public or private housing projects that might otherwise never get started. In view of the present housing crisis, no project which offers the promise of new houses, however few, can afford to be neglected.

¹ For a discussion of new forms of community organisation that have been developed for this and other purposes in a number of countries see UNITED NATIONS: Survey of Problems of Low-Cost Rural Housing in Tropical Areas (Lake Success, 1950), ch. 4; D. S. HATCH: The Rural Center Approach (Turrialba, Costa Rica, Food and Agriculture Organisation and Inter-American Institute of Agricultural Sciences, 1949); FOOD AND AGRICULTURE ORGANISATION: Essentials of Rural Welfare (Washington, D.C., 1949) and Social Welfare in Rural Communities (Washington, D.C., 1949).

² Cf. International Labour Office: The Organisation and Administration of Housing and Building Societies (Geneva, 1949, roneoed); also United States Bureau of Labor Statistics Bulletin No. 858: Organization and Management of Cooperative and Mutual Housing Associations (Washington, D.C., 1946).

A Long-Term Programme

Even while a short-term emergency programme is being drafted and implemented, governments will need to give attention to the long-term solution of the housing problem.¹ One of the most useful steps which can be taken toward such a solution is the establishment of a central agency at a high level within each government to co-ordinate the housing activities of all public and semi-public undertakings. Housing policy is likely to be piecemeal, incomplete and possibly at cross purposes until responsibility is clearly established for the formulation of a comprehensive national programme.

Secondly, town and country planning activities will need to be expanded. Such planning is essential to avoid waste of resources and to safeguard the worth of future investments in public and private facilities and particularly in housing.

One of the most important housing questions concerns the supply of building materials. As previously noted in this article, Latin-American countries have made great progress in increasing their cement-producing capacity during the last decade. Similar steps have also been taken, or are planned, to increase the supply of other building materials, such as brick, tiles and lumber. Many countries, however, have not yet made a systematic examination of the available productive resources or taken action to increase the supply of building materials.

A fourth basic problem is the development of an adequate supply of skilled labour in the housebuilding industry. Governments, employers and workers will need to give close attention to the vocational guidance, vocational training and apprenticeship systems required to achieve this long-term goal.

In the fifth place, there is a need for long-term research on low-cost building materials and methods. Such research

¹ Reference may be made in this connection to the following studies and long-range housing programmes: Housing in Barbados, Report of a Committee appointed by His Excellency the Governor to Submit Recommendations for the General Improvement of Housing and Domestic Sanitation in Barbados, including Proposals for Assistance under the Colonial Development and Welfare Act (Barbados, Advocate Co., Ltd., 1943); G. GIGLIOLI: The Population and Housing Problem on the Sugar Estates of British Guiana, op. cit.; Philip W. Bourne, Housing Study for the Republic of Haiti (Washington Housing and Home Finance Agency, 1948); Anatole A. Solow: Housing in Guatemala (Washington, D.C., Pan American Union, 1950).

may make an important contribution to greater economy in construction and to increased comfort in housing accommodation.

Finally, governments will want to formulate long-term housing standards that are both acceptable and capable of realisation. Such standards are needed as a basis for the development of an adequate housebuilding industry.

Given the co-operation of governments, employers and workers, and full use of the types of technical assistance referred to above, emergency and long-term programmes along such lines as these should make possible substantial improvements in housing for large numbers of people in the reasonably near future.