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INFORMATION PAPER ON TECHNICAL ASSISTANCE PROVIDED IN 1964
TO THE COUNTRIES AND TERRITORIES OF THE ECLA REGION
UNDER THE EXPANDED AND REGULAR PROGRAMMES

(Prepared by the TAB Secretariat)



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1. INTRODUCTION

1. The present paper, prepared for the information of the ECLA, gives a summary account of the technical assistance provided to the countries of the ECLA region in 1964 by the United Nations and the Specialized Agencies under both the regular programmes and the EPTA.

2. It is based on materials provided by the Organizations participating in the EPTA and is intended to describe in brief, a selected number of assistance projects which have been started, continued or completed during the year 1964. The descriptions have been classified according to ten broad fields of activity and are not meant to represent a complete survey of all technical assistance provided in the region but rather to give an indication of the nature and range of international-sponsored technical assistance activities carried out in countries of the ECLA region as well as selected regional and inter-regional projects for which Latin American countries have offered host facilities.

3. Statistical data on the approved programme costs, experts assigned and fellowships awarded for the area under both EPTA and regular programmes may be found in Tables I, II, III at the end of this paper. The figures given for EPTA reflect the programme as approved plus contingency allocations made during the period.

4. The general picture of technical assistance supplied by the United Nations family to the ECLA region is that of a slight increase in its cost in 1964 as compared with 1963, whereas the cost of the regular programmes remained much the same. However the number of EPTA experts assigned substantially declined from

769 in 1963 to 686 in 1964. This decline was partially offset by a substantial increase in the number of fellowships awarded, from 517 in 1963 to 659 in 1964. The number of experts on the regular programmes increased a great deal in 1964 as compared to 1963 (909 in 1964 as against 801 in 1963); the number of fellowships awarded was slightly higher in 1964 than in 1963.

5. Complete details of the whole Category I programme for the biennium 1963-1964 as approved may be found in Document E/TAC/L.281 of the Technical Assistance Committee and a statement of projects authorized during 1963-64 under the contingency authority of the Executive Chairman is available in Documents E/TAC/L.314, and E/TAC/L.340.

A. Assisting Development Plans, Basic Surveys, Administrative and Statistical Services

Assistance related to economic planning and programming continued to be the most important field for United Nations technical assistance to Latin America in 1964.

The country programmes and the regional projects in the field of general planning and economic programming are largely carried out under the guidance of the Latin American Institute for Economic and Social Planning and the Economic Commission for Latin America, in close co-operation with the Organization of American States, (OAS), the Inter-American Development Bank (IID) and other interested international agencies. It will be recalled that the functions of the Advisory Groups are to collaborate with the planning organizations of the countries in which they are established in order to prepare long and short-term development plans and programmes, and to train the national staff. UNPA has continued its co-operation in the financing of a number of posts in the Advisory Groups organized by the Tripartite Committee ECLA/OAS/IID in several countries of Latin America. Such Groups are now established in Paraguay, Peru, Uruguay and in the Central American countries. A similar group is also established in Bolivia. ^{1/}

Considerable progress was made in 1964 in the work of the Advisory Groups. In Paraguay, the first two-year plan, covering both the public and the private sector, is nearing completion. The Plan will include sectoral and aggregate targets; attention is also given to the formulation and co-ordination of the sectoral development policies.

^{1/} The mission in Bolivia is organized by UNPA, ECLA and the Latin American Planning Institute in cooperation with FAO.

In June 1964, the National Planning Institute of Peru completed its public investment plan for 1964-65 with the collaboration of the Advisory Group. The summary of this plan has been formally approved by the Government. It covers principally the programming of public investment, combined with a less detailed treatment of current expenses of the public sector and is accompanied by an inventory of public investment projects, including financing aspects.

The Investment and Economic Development Commission of Uruguay is completing the formulation of a three-year plan, within the framework of a longer term plan which indicates the general lines of long-term development policies and the targets expected to be fulfilled. Considerable efforts were put into the basic analysis which constitutes the first complete structural study of the economy of the country and its development problems. In both long-term and short-term plans, attention has been given to public administration, fiscal and agrarian reforms. Great attention is also given to problems of financing, including monetary, exchange and credit policies. An action plan for the public sector with targets for the activities of the Government is now under preparation.

In Central America, the Advisory Group has collaborated with the respective Governments in the formulation of national programmes, some of which are co-ordinated at the regional level. The initial stage of the work, including basic structural analysis, revisions of national accounts and organization of the national planning offices, was completed in the course of 1964, and the available resources were directed to the formulation of the plans, which are expected to be completed in the next few months. These plans will be concerned largely with public investment, although some significant projects in the private sector will also be included. The national plans will also include certain regional projects which had already been approved by the governments concerned.

The Advisory Group in Bolivia works with the Planning Secretary of the country. The Group had participated in the preparation of the two-year

plan in Bolivia and has continued co-operating in the preparation of the second two-year plan. During 1964 the Institute and the Economic Commission for Latin America examined, with the Bolivian authorities, the needs and requisites of the new stage of planning, directed principally to the implementation of programmes.

As the basic planning documents are nearing completion, a growing need is now felt for short-term technical assistance on specific subjects, either for the evaluation of the sectoral programmes or for on-the-spot advice regarding certain projects. This need has been met in two ways:

a) UNCTA and the Institute have contributed significantly to the work of the Advisory Groups by providing short-term advisers, sometimes for periods of several weeks, in order to advise in certain fields in which no long-term posts existed, such as national accounts, and statistics.

b) Some countries are already taking the preliminary steps to implement the various programmes, including changes in the public administration. Thus, following the work of a public administration expert in Uruguay attached to the Advisory Group, the Government of that country has asked the United Nations for three short-term experts to deal respectively with civil service, public accounting, and organization and methods. Similarly, the authorities in Paraguay and Uruguay have expressed interest in short-term technical assistance related to the formulation and evaluation of concrete investment programmes in the fields of industry and utilization of national resources.

The organization of training programmes is an integral part of the activities of the Latin American Planning Institute whose programme includes both the basic economic development course offered in Santiago and intensive courses organized in various countries.

As in the past, UNCTA continued last year to co-operate with the Governments in providing fellowships for the basic course. Intensive

courses were conducted in 1964 in three different countries and regions. In Brazil, such courses were held in Bello Horizonte, Porto Allegre and Fortaleza with a total enrollment of 142 trainees. In Central America the course took place in Guatemala City with 55 trainees from six countries. The third course, in Peru was attended by 70 trainees.

In addition to the Advisory Groups, the United Nations is extending assistance in the field of planning and programming in Barbados, Brazil, British Honduras and Ecuador. Thus, two United Nations advisers were appointed in Brazil to serve with a regional planning institution. One of them is principally concerned with co-ordinating activities for implementation of the development plan, and his colleague is concerned with the elaboration of a system of regional accounts. An adviser to the Caribbean countries is completing an economic review of the area. A senior economic adviser has been appointed to Ecuador under the UN Regular Programme, to collaborate with the Planning Board of that country in the formulation of concrete development policies related to the implementation of the recently approved economic development plan, with particular attention to its external aspects.

Short-term assistance in fiscal policy and related questions was given to Argentina, the Dominican Republic and Trinidad and Tobago.

In the course of 1964 technical assistance in the field of statistics was given to 10 Latin American countries: Bolivia, British Honduras, Chile, Colombia, Mexico, Panama, Paraguay, Peru, Trinidad and Tobago and Venezuela, to cooperate in developing the statistical services of the countries as well as in supply of information. In some countries, British Honduras and Trinidad and Tobago for example, the training of local statisticians was an important feature in the work of the technical assistance advisers.

In other countries, United Nations assistance was directed principally towards the preparation of national censuses and the processing of information. Thus, in Colombia an expert in mechanical tabulation was attached to the Departamento Administrativo Nacional de Estadística to study.

the current systems of national tabulation and different statistical enquiries.

In Trinidad and Tobago, the Central Statistical Office requested short-term assistance from the United Nations in order to evaluate the characteristics of electronic equipment needed to meet the requirements of statistical information in that country. As a result of that mission, the work programme of the Central Statistical Office was revised and enlarged and a further adviser was requested to assist in the operation of the Centre.

At the regional level, a group of statistical advisers has been cooperating actively with the Governments of Latin American countries in the fields of sampling and vital statistics.

The regional adviser on vital statistics advised the Government of Paraguay on the reorganization of the civil registry services and participated also in the preparation of the various documents to be presented to the Second Inter-American Seminar on Civil Registration held in Lima, Peru, from 30 November to 11 December 1964. The regional adviser on sampling advised the Governments of Argentina, Colombia, Chile, Paraguay and Uruguay on the preparation of sampling schemes related to economic and population censuses with a view to anticipating the tabulation of the results.

In December 1964, the United Nations, under the auspices of the Economic Commission for Latin America and UNTA, have jointly organized in Lima, Peru, the Second Inter-American Seminar on Civil Registration, co-sponsored by the Instituto Interamericano de Estadística, the Instituto Interamericano del Niño, the Panamerican Health Organization and the Asociación Interamericana de Registro Civil.

The objective of the Seminar, which follows an earlier meeting held in 1954, was to analyse the evolution and present status of civil

registration practices in the Americas; the nature and organization of a model civil registration service; possible methods of encouraging civil registration, and the formulation of a regional programme for the improvement of civil registration during the period 1965-69.

The Seminar was attended by 37 participants from 25 countries and territories of the ECLA region, representatives of sponsoring organizations and a number of observers. Over 22 documents were prepared for the Seminar by the ECLA Secretariat, CELADE, the UN Statistical Office, the sponsoring organizations and by a number of participants.

The Seminar recognized that the civil registration service is an institution with a social purpose which carries out an essential service for the community. It should be a government service and its basic functions should be of a juridical and statistical nature. As regards the statistical functions it was pointed out that the wide use of data on vital events permits a more scientific knowledge of the demographic variables; this is an essential basis for the planning of development, more especially in such sectors as public health, housing and education.

The Seminar took the view that it was of basic importance for countries to work out a programme to improve civil registration services, of which the first stage would cover the period 1965-69. The initiative and main responsibility for the preparation of the programme would rest with the Governments themselves, and they should make use of the co-operation of the national committee on civil registration and vital statistics with a view to ensuring an integrated programme.

With respect to aid from international agencies in the field of civil registration, either through the committee that the Seminar proposed should be set up, or directly from the agencies concerned, the Seminar stressed the benefit that countries could derive from prompt and co-ordinated action. It was considered that it might be useful to explore the possibility that, as forms of technical assistance, (a) the Latin

American Demographic Centre (CELADE) might prepare a simple manual on statistical methods, with special reference to methods of measuring the completeness and accuracy of vital statistics, to be used by registrars in the Latin American countries; (b) the United Nations and the Organization of American States might examine their technical assistance programmes with particular attention to questions of civil registration, public administration and vital statistics, and do what they could to meet any requests received for experts or fellowships in those fields; (c) that the Statistical office of the United Nations, when it published the report of the Second Seminar, should distribute it as widely as possible among the Governments and the agencies and officials concerned in all the Latin American countries.

With respect to assistance for training of personnel, it was suggested that the proposed committee for co-ordinating the activities of international agencies in the field of civil registration could take advantage of the existence of the Advanced School of Public Administration for Central America (ESAPAC) in Puerto Rico, and the Getulio Vargas Foundation School of Administration in Brazil, by arranging through those institutions for courses on administrative techniques that could be applied to civil registration, and for provision of advice on reorganizing the civil registration services.

Assistance was also given to Governments in the conduct of basic surveys of resources. At the request of the Netherlands Antilles, for example, the United Nations provided a team of experts to survey the problems of desalinization of sea water in conjunction with the development of electric facilities.

In Jamaica a hydrologist made several short-term visits in connection with the evaluation of a proposed large power and irrigation scheme and in order to study flood control projects following the hurricane in 1963.

Hydrologists appointed by the United Nations, under its Regular Programme, are advising in Brazil and Peru, respectively, on organization of the hydrological services and the conduct of programmes of exploration of underground water resources.

A group of experts in water resources was advising various governments of the region. The regional adviser on legal and institutional aspects of water development co-operated with the Governments of Argentina, Peru and Uruguay in the analysis of the legal and institutional bases on which the water resources are being utilized, preserved and developed. The regional adviser on water supply rendered services to the Governments of Peru and Uruguay on the analysis of the public water supply system currently in use, and on means of improving it, both in rural and urban areas. The regional adviser on multipurpose water utilization advised the Government of Peru on the presentation of a description and general diagnosis of the prevailing situation of water supply, including all public works related to the demand for hydroelectric generation and irrigation. The regional adviser on hydro-electricity advised the Government of Peru on the analysis of existing resources and future demand for electric power. The regional adviser on hydrometeorology of the WMO collaborated with the Government of Peru in the analysis of basic data on meteorology, and hydrology, analysis of river characteristics, etc.

The eruption of the Irazú volcano in Costa Rica in 1963 deposited more than 10,000,000 cubic meters of ash on the surrounding countryside over a period of about one year of volcanic activity. During the rainy season the ashes are carried down and washed into the rivers, forming heavy mud which dams the streams and causes dangerous floods with resulting damage. A WMO hydrometeorologist with radar experience and an aerologist were sent for four-month and five-month missions respectively, commencing in June 1964, in order to study precipitation area forecasting (with radar location of rainfall) and wind flow (in relation to ash deposit), to determine the potential mud and flood conditions, and give warning prior

to their occurrence. Their missions covered also advising in respect of the setting up of observation stations as well as determining the equipment required for these stations. The experts made a thorough survey of the existing hydro and meteorological networks, the reports of which were both accurate and timely. New stations were planned to cover the areas of heavy rainfall from which the flood-producing runoff emanates, and to determine which stream will flood and how soon to expect high water.

The Government of Costa Rica also requested technical assistance from the United Nations to study ways and means to avoid or counteract damages brought by volcanic ash-fall. A specialist in soil mechanics conducted a three-month mission to suggest remedies to check mud flows in certain heavily populated areas, and provide guide lines for future investigations in that field. He proposed to the Government, in his final report, the development of a planting and ditching programme to decrease the danger of mud flows. In addition, construction of storage and construction dams was recommended in certain affected areas. Assistance was also proposed in connection with the topographic survey of the areas affected by volcanic activity.

For its part, the World Meteorological Organization has also been instrumental in helping several governments survey their resources and cope with unruly phenomena of nature.

In Panama, which has most promising water resources for hydro-electric power and irrigation schemes, the Government had recognized the need for an extended network of hydrometeorological stations covering the whole country, and formulated a five-year plan for this purpose. Since there is no meteorological service in Panama, one expert mission of six months to advise the "Instituto de Recursos Hidraulicos y Electrificación" was requested by the country. The expert (a hydrometeorologist) studied and advised on the five-year plan for the establishment of an appropriate network, according to internationally recognized standards, in order to meet the requirements for the design of water resources projects, since both the data available and the data provided by the existing hydro-meteorological stations were insufficient for the planning of development programmes.

During his mission the expert also visited the existing observation stations, made suggestions for the improvement of instruments and sites, gave instructions on methods of observation, and advised on techniques of collecting and processing the data as well as on their publication. WMO provided instruments, including water-level recorders, ordinary and recording rain gauges, and evaporation tanks.

A joint request has been submitted to the Special Fund by six countries (Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua and Panama) for a major project involving a preinvestment survey of water resources through the expansion of meteorological and hydrological networks. The Government's five-year plan will serve as a good foundation in respect of Panama's participation in the Special Fund project.

In addition to surveying resources and assisting in the formulation of development plans, the United Nations, through its Bureau of Technical Assistance Operations, has been active in the field of public administration in the ECLA area.

In Argentina a senior expert in public administration completed a UNTEA assignment of several years with the Instituto Superior de

Administración Pública, in the course of which he also advised the Government on a number of major administrative reforms. In the course of 1964 a training course for executives in different government agencies and enterprises was successfully conducted.

An adviser in public enterprises in Colombia prepared a programme of work for the Secretaria de Organización y Inspección de la Administración Pública, relating to the study of organization and operation of public enterprises and the system of control in administration and financing, to aid public corporations in the fulfillment of their roles in implementing the national development plan.

Advice is being given to Honduras on the organization of the Civil Service of that country.

A two-year mission in the field of management was concluded this past year at the Institute of Hydraulic Resources and Electrification of Panama. Among his recommendations the expert stressed the need to introduce an employee selection, training and promotion system. Other points emphasized by the expert were related to accounting techniques and financial planning to cope with the increasing expenditures and expansion needs of the Institute. A manual of administration containing organizational management procedures recommended by the expert was put into effect.

Also in Panama, another expert completed a short-term mission on the administrative and legal aspects of planning.

A UNCTAD expert assigned to the Internal Revenue Office in Venezuela has assisted in putting into effect improvements in organization and administration of the office including the control of taxpayer rolls, new auditing systems and procedures, and electronic data processing of income tax information. These improvements have greatly increased the effectiveness of the office.

An adviser in public enterprises in Colombia prepared for the Secretaría de Organización e Inspección de la Administración Pública, a programme of study of the organization and operation of public enterprises, and the system of control in administration and financing so as to help improve the functions of the public corporations in implementing the national development plan.

The regional adviser on public administration advised the Governments of Colombia, Mexico, Peru and Uruguay on (a) evaluation of the main problems of public administration in relation to the administration and organization of economic and social development plans; and (b) preparation of work programmes for carrying out administrative reforms. The regional adviser also had to give substantive backstopping to various UNTA experts on public administration assigned to country programmes of the United Nations technical assistance.

At the multi-national level, mention may be made of the activities of the Escuela Superior de Administración Pública para América Central (ESAPAC), in conducting a programme of work which combines basic research, discussion meetings, training courses, technical assistance and extension services, to the Governments of Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua and Panama. These activities are focused on fields of administration most directly relevant to the formulation and implementation of development plans and programmes. In the course of 1964, ESAPAC conducted seminars and courses at the regional and country levels in the field of Administration for Economic Development, Customs Administration, Fiscal Administration and Highway Administration Programmes.

Early in 1964, the staff of ESAPAC cooperated with the OAS/ECLA/IDB Joint Programming Mission in Central America in preparing a basic analysis on the administrative situation of the public sector in the countries of the area. This document was later discussed by a group of Central American experts which formulated a number of recommendations for improve-

ments designed to enable the administrative machinery to fulfill the functions required by the economic and social development of those countries. In the course of November 1964, a high level Conference on the Determination of Priorities in the Administrative Action for Development took place at the seat of ESAPAC with the participation of representatives of the Legislative Power, the Judiciary, Ministries of Economy and Finance, the Universities and the Central Banks of the countries of the area.

A Seminar on Purchasing and Supply in Central America met in July 1964, under the aegis of ESAPAC and UNTA with participation of twenty Government officials from the countries of the region. The Seminar reviewed ways and means for the modernization of systems and procedures, related to purchasing, inventories, contracts, norms and specifications and administrative organization of the relevant offices.

In the field of Budget Administration, a Working Group on Fiscal Accounting was convened in Santiago by the United Nations from 23 to 28 November 1964, under the auspices of the Economic Commission for Latin America, the Latin American Institute for Economic and Social Planning and UNTA. The meeting was attended by nine participants from nine countries of the region, a representative from Headquarters, two consultants and several observers, besides the staff members concerned from ECLA and the Institute.

This meeting was convened to discuss the following topics:

- (a) the relations between planning, budgeting and fiscal accounting;
- (b) the classification of fiscal accounts for the purposes of accounting and control;
- (c) the application of costs accounting in State enterprises;
- and (d) procedures for the establishment of systems of accounting by programmes, activities and projects.

The Working Group discussed the need to integrate the planning, budgeting, accounting, information, control and evaluation processes, in

order to give cohesion to a governmental system that would establish precise targets, allocate resources and keep a check on results. It was established that the aim of planning was to determine long, medium and short-term objectives, and to define the operations required for their attainment. In this latter connexion, it was noted that such operations should be outlined in the annual plans. The public sector's budget would take them into account, and, through its programmes, allocate the appropriate resources, measuring the cost of the activities to be undertaken. The function of fiscal accounting was to record the transactions deriving from the execution of the operations decided upon. The information process would be based on this record, so that specific data on what had been achieved could be presented at regular intervals; in that context, the principle was laid down that such information should cover financial aspects and results obtained, also expressed in units of measurements that would permit the control and evaluation of programmes.

The Working Group was in agreement upon the desirability of a gradual reform of accounting systems in the Latin American countries, in order to adapt them to the requirements of planning and of programme budgeting. With a view to defining the scope and repercussions of such reforms, the various participants reported upon the efforts made to that end in the different countries, and indicated the chief problems and obstacles with which they had been faced.

B. Public Utilities - Power, Transport and Communications

Specialists in geothermal resources were assigned by UNTA on a short-term basis to four Central American countries (Costa Rica, El Salvador, Guatemala and Nicaragua), as well as Chile and Mexico. Their work has led, in two countries, to the formulation of requests for Special Fund assistance in the further exploration of geothermal possibilities.

In the field of electric power, an expert is assisting the Instituto de Fomento Electrico y Agua in Colombia in planning and implementing projects for the development of electric power resources of the Northeast region of the country and the interconnection of this region with Central Colombia on the one hand, and with Western Venezuela on the other hand. He is also cooperating with a Colombian Committee in charge of planning and establishing a national interconnected grid to serve the main power-using areas of the country.

In Central America, a team of two experts from the Central American Integration Programme continued their studies of the joint development of power resources and interconnection of electricity networks among the Central American countries. Co-ordination was achieved with a Special Fund project for a study of the possible interconnection and joint exploitation of resources between Costa Rica and Panama. Several inter-country studies of linked power systems are completed and others are in progress.

Several projects in Bolivia may also be mentioned. A photogeologist provided by UNTA contributed to the discovery of three new oil fields in the localities of Bulo-Bulo, Tatarenda and Naranjillo in the eastern tropical areas of the country and, as a result, the concentration of drilling in the southeast may have come to an end. An era of intensive exploration is now likely to begin covering the lower abutment of the Andes northwest from Santa Cruz to the frontier of Peru, which is believed to be potentially rich in petroleum and gas.

The United Nations expert has been advising on general exploration policy and techniques and on the introduction of modern photogeological methods. His efforts resulted in concrete findings. By studying aerial photographs, it is now possible to locate potential structures by photo interpretation before field work starts, thus making possible a considerable reduction in the size of field teams and in the amount of field work necessary.

Apart from the potential of the recently discovered oil fields and the contribution which the increased petroleum and gas production can make in meeting the demands of the industrialization and general development of the country, the activities in the zone dovetail with other aspects of the Bolivian Government's development plans. Large colonization projects are now in their first stages in Alto-Beni and certain nearby areas. These projects will provide feeder roads and other facilities which will, in turn, help in the exploration for petroleum. Finally, the opening of oil wells may attract spontaneous colonization and provide markets for the colonists' cash crops.

A United Nations team in Trinidad and Tobago has been advising the Government since early 1964 in the matter of the evaluation of its oil and natural gas resources and the organization of the Government departments concerned with these questions.

Advice in the field of transport was provided to Bolivia, British Guiana, British Honduras, Chile, Jamaica, Mexico, and Peru relating to transport programming, economics and administration, as well as on technological questions. Thus, in Chile two experts completed their assignments with the "Empresa Portuaria de Chile" in equipment maintenance and cargo operations. A third expert in port accounting undertook a three-month return assignment in order to help implement earlier recommendations on the establishment of a cost accounting department. It is hoped that the expert will return periodically to study the establishment of the system in other ports in the country.

In Mexico, three experts reviewed the national project of modernization of the transoceanic communication of Mexico in the Isthmus of Tehuantepec, designed to promote the modernization of the transisthmian railway and eventually to facilitate interoceanic trade through existing improved facilities. One was a transportation economist, who reported on the general economic problems involved; another a railway engineer, who gave specific advice on technical problems; and the third a maritime transport specialist who studied the possibility of using modern loading methods.

In Peru, a two-year mission relating to the development of ceramics laboratories and the training of technicians was successfully completed.

Another expert in transport economy under the Central American Integration Programme surveyed facilities and enterprises in Central America and made recommendations for their improvement. He also studied transport legislation in various countries and collaborated in the preparation of forecasts as to the growth in needs for transport facilities that is expected to result from the expansion of economic activities in the countries of the area.

An outstanding project in the field of ICAO technical assistance for civil aviation took place in Ecuador, and was associated with an almost complete reorganization of the Department of Civil Aviation, the installation of modern radio aids to air navigation and aeronautical telecommunication facilities, and the development of certain essential ground services related to the safety of air traffic in the country. During the year 1964, the ICAO Technical Assistance Mission consisted of 6 experts. A Civil Aviation Adviser and an Electronic Engineer were assigned under EPTA. Four other experts, financed from contingency funds, covered the fields of Air Traffic Services, Radio Technical Installations and on-the-job training, and Aviation Services Costing and Financial Advising. ICAO technical assistance in Ecuador is related to a very energetic programme of planning and development of the Civil Aviation administration and services on the part of the Government, which has invested some five million dollars to provide modern facilities and equipment. A scholarship programme, now fully implemented, was also financed from EPTA funds.

Regional technical assistance was introduced in the Latin America and Caribbean area at the beginning of 1963 and the demand for short-term highly specialized help under this heading is continuously growing. Six projects have been undertaken as follows: Air Traffic Control (Approach Control), Frequency Search, Personnel Licensing and Operational Control, Fire Fighting and Rescue services, Air Transport - Air Freight Survey and Aerodrome Engineering. So far, twelve countries have participated in one or more of these projects. The Air Transport/Air Freight project is of a short-term nature and was completed in September 1964. The Aerodrome Engineering Project was introduced to meet the specific needs of three countries. Another Regional Project, to cover Communications Engineering Maintenance Planning will be introduced early in 1965 as a result of requests from several governments. Technical assistance through the Regional Programme is normally provided for periods ranging from one to three months per country, and indications of interest in the five projects to be continued into 1965 suggest maximum utilization even beyond the 1965/66 biennium.

In Trinidad and Tobago, Air Traffic Services Training facilities for the English-Speaking areas of the Caribbean and South America have been established with the help of two ICAO instructors. The programme included the provision of training equipment up to an amount of \$14,000. Progress and results have been very satisfactory and in addition to local students, personnel from Surinam and British Guiana have been trained at the school. There have been many enquiries from other Caribbean islands regarding the possibilities of sending students to Trinidad and Tobago for training in Air Traffic Services.

In the field of meteorological telecommunications, the WMO last year convened a technical conference in Venezuela as a follow-up to the recommendations made by a WMO telecommunications expert who conducted a survey of meteorological telecommunication arrangements in South America in 1962. Invitations were sent to all member countries of the region and 85% of them nominated participants. The agenda included a regional plan for the exchange

of coded data taking into account the requirements for reception of basic meteorological information; a regional plan for the exchange of information by facsimile; dissemination of information obtained from meteorological satellites; and technical problems associated with the plans. The recommendations agreed upon during the sessions will be submitted for formal approval to the Members of the region.

The ITU contribution to the development of telecommunications in Latin America in 1964 included sending a team of three telecommunications experts consisting of a transmission engineer, a central office equipment engineer and a network engineer to Central America to assist the countries of the region in the planning of the new Central American Telecommunications network.

Five countries in this region (Costa Rica, El Salvador, Honduras, Guatemala and Nicaragua) were assisted by the ITU team of experts. The principal field in which they were called upon to give advice - each in his own branch - was with regard to the very numerous invitations for tenders to buy large quantities of line, exchange and transmission equipment, and the technical recommendations made by the experts contributed greatly to the solution of numerous problems.

The idea of having a team of three experts specializing in different branches so as to embrace almost all aspects of telecommunications has proved to be a very good one, especially with regard to the establishment of a Central American Telecommunications Network. Although this network is constituted by the interconnection of five different parts (six, including Panama) each belonging to a different country, its basic structure has been planned on the same lines throughout. The presence of a single team of technicians to help the different countries to build their own parts of the international network has been an excellent means of coordinating and unifying the whole, and will no doubt continue to be so for the next two years, i.e. during the phase in which it will become a reality.

An ITU expert has been in Chile during 1964 to assist the Government in preparing a general development plan for telecommunications for the period to 1970. This plan includes public telegraphy and telex, and local, long distance and international telephony. The same ITU expert has also been appointed as adviser to a special national study group having the task of drafting a project for a national post and telecommunications agency. The project having been completed, it has been submitted to the Government for consideration and approval. If adopted, it will represent a good solution for improving the present situation in the Chilean Posts and Telegraphs Department.

Three ITU experts were sent to Peru in 1964: the regional expert for Latin America who has given technical assistance in technical matters for the re-organization of the Peruvian telecommunications network; an expert in tariffs and rates for telephone and telegraph facilities who carried out an important study of operating costs of the above services in Peru which will, in the future, considerably facilitate the calculation of tariffs; and a third expert who specialized in organization, laws and regulations for telecommunications. Peru is now introducing some important changes in its telecommunication organization, chiefly involving a reshuffle of the governmental body responsible for supervising services and this third ITU expert was a great help in drafting a new basic telecommunication law for the country.

The International Postal Union has also contributed to the development of communications in the ECLA region during the past year.

Based on the success of a Postal Administration mission in 1961, the Government of Chile has requested the expert's return in 1963/64 to continue the reorganization of the postal services. During the past year he made numerous recommendations for the modernization and reorganization of the services so as to speed postal communication. Furthermore, upon his advice and upon agreement with the Chilean Postal Administration, there was created an Office of Organization, Methods and Planning, which has carried out some 30 projects studies, organization or new regulations, several of which have now been put into practice. The Government has asked the expert to return in 1966 to complete his mission.

C. Industrial Development

The main activities of the United Nations in 1964 relating to industrial development are to be found in the work of the industrial planning experts attached to Advisory Groups in several Latin American countries. Independently of these groups, United Nations advisors in industrial planning have been provided also to Ecuador, Honduras and Jamaica.

The expert in Honduras has prepared for the consideration of the National Economic Council a report including projections related to a general analysis of the structure and trends of the national economy. He has also participated in discussions of the programme of studies in connection with development of the southern zone of Honduras.

In Chile, the Government estimates that handicrafts and small scale industries occupy sixty percent of the population engaged in the manufacturing sector. Assistance is being rendered on a long-term basis by a small-scale industries economist, who has been advising the Servicio de Cooperación Técnica of the Chilean Development Corporation on financing schemes, organization of small industries, handicrafts, and marketing. A second expert is advising the Servicio in the maintenance of equipment and machinery for small industries. Together with the engineers of the Servicio, he periodically visits small industrial enterprises and advises them on various technological problems which they meet in their day to day operations.

The services of a consultant firm were made available through UNCTA to study the foreign marketing possibilities of Chilean leather goods.

Assistance was also given to the Chilean Steel Institute by UNTA experts in specialized metallurgical fields.

In Guatemala, a United Nations expert completed an assignment of several years as textile adviser to the Government. During his mission, the expert advised on the development of cooperatives for textiles production and finishing, as well as the modernization of existing machinery in the small-scale manufacturing sector. The Government was advised that emphasis should be placed on the introduction of modern production techniques for the textile industry, in the private as well as in the cooperative firms. The expert recommended an intensification in the production of light-weave cotton fabrics to counter-balance the increasing imports of synthetic tropical fabrics into Guatemala and the Central American region.

In Mexico, the Banco Nacional de Fomento Cooperativo is being assisted in its programme related to the production and marketing of maritime salt. The expert has carried out two preliminary studies of evaluation of certain salt cooperatives and he has also made recommendations for the improvement of production systems. Training has also been given to his two counterpart engineers. It is expected that the expert will continue his work during 1965.

Another expert in Nicaragua is advising the Banco Nacional on projects for the promotion of small-scale, handicraft and cottage industries, as well as the establishment of new industries. In this connection, he is conducting a sampling survey for a programme of financial assistance to small and medium scale industries in Nicaragua. The expert has also participated in discussions on the needs for vocational training.

In Venezuela, the United Nations adviser, financed under Funds in Trust, who is assisting the Department of Industrial Fermentation at the University, will do research on the utilization of molasses as an industrial raw material.

A number of short-term missions were organized during the course of 1964 to help the Latin American countries to evaluate programmes and, in some cases, specific projects. Argentina and Ecuador were particularly concerned with the development of an industrial estates programme within their national industrialization plans. In the case of Ecuador, the United Nations also provided a second small-scale industries specialist to assist in analyzing various proposals for the promotion of such industries. The recommendations of the experts were incorporated in the final draft of the national bill.

Experts were also appointed on short-term missions late in 1964 to Argentina and Peru, to advise on improvement of industrial technology and on evaluation of investment projects, respectively, as advance implementation of technical assistance projects scheduled to be carried out in full in the 1965/66 biennium.

In the general field of industrial development, the regional adviser on pulp and paper travelled to Argentina, Brazil, Colombia, Honduras, Mexico, Peru and Venezuela in order to discuss with government authorities the provision of the relevant information for the preparation of surveys on pulp and paper resources. The regional adviser on mechanical industries collaborated with the Government of Venezuela in the preparation of a programme of imports substitution for the development of the mechanical industries of the country. The regional adviser in technological research assisted the Technological Research Institute of Argentina and participated as a consultant in the Inter-Regional Seminar on Technological Research Institutes which took place in Beirut, Lebanon, in December 1964. The adviser collaborated also with ECLA in carrying out a research study on the Steel industry in Latin America. The regional adviser on chemical industries devoted most of his time to the preparation of the Seminar on Chemical Industries which took place in Caracas, Venezuela, in December 1964. He also participated in a Meeting of the Group of Experts for the Study of Chemical Industries convened by the LAFTA Secretariat in Montevideo, Uruguay, in October 1964.

A regional Seminar on the Development of Chemical Industries in Latin America was organized by the United Nations in Caracas, Venezuela, under the auspices of the Economic Commission for Latin America and the United Nations Centre for Industrial Development, with the collaboration of UNCTA, in pursuance of its programme of study of all the possibilities for expansion of the industrial facilities available for use in the region's economic integration process. On the basis of a preliminary survey of the chemical industry in different countries, the Seminar was held in Caracas from 7 to 12 December 1964. Its aims were: (a) to give the participants an opportunity to gather information useful for programming activities in the chemical industry sector; (b) to analyse specific problems and obstacles to such programming existing at the regional level and evaluate methods of solving these problems and

difficulties through a plan of regional integration within the sector; (c) to establish guidelines for a common programme whereby the Latin American countries could accelerate the development of the chemical industry at the regional level; (d) to examine the advantages of integrated regional development of specific basic chemical industries.

About 60 high-level technicians attended the Seminar by invitation, besides staff members from ECLA and from the United Nations Headquarters, the consultants who had prepared papers for the meeting and over 100 observers sent by the private sector.

In addition to the background documents prepared by the ECLA secretariat, the participants presented 38 information papers, by virtue of which it was possible to form a fairly comprehensive picture of the status of development programmes for the chemical industry in each country. During the discussion, attention was drawn to several points of considerable importance for the future integration of the chemical industry:

(a) The formulation of national development plans for the chemical industry might serve to pave the way for the preparation of regional integration programmes. In that sense, those countries of the region that had already drawn up such national plans were in the most favourable position to discuss specific specialization possibilities and programmes;

(b) Specific programmes for the integration of the chemical industries would have to be the product of an effort to make the various national plans mutually compatible and complementary, rather than the final outcome of an automatically-operating system of tariff reductions based on comparative advantages. It was clearly inadmissible that the selection of the lines of productions to be developed in any one country should be determined by automatic procedures for the elimination of obstacles to trade, with a view to allowing the free inter-action of market forces and the comparative advantages that each country possessed.

For it was overtly recognized that the benefit a country would derive from the development of a given project or a particular branch of the chemical industry could not be assessed solely in terms of a comparison of production costs, basically deriving from natural resources and scales of productions; the role of the specific project or line of production within an over-all industrial development plan would also have to be taken into account, as regards its association with other projects, the creation of external economies and the establishment of a balanced industrial structure. These considerations, which had nothing to do with costs and economies of scale, could only be given due weight when they could be evaluated in the light of a chemical development programme formulated as part of an over-all industrial development plan;

(c) The elimination of obstacles to trade, as far as the most important chemical products were concerned, should be accompanied by programmes for expanding production in the most favourable location, through the establishment of large regional plants whose capital would be jointly financed by the countries that were major consumers of the product in question. The principle that countries importing the product to be "integrated" should be invited to contribute capital for the financing of regional plants was perhaps the most novel and most important of the positive conclusions reached by the Seminar. Briefly, the opening of markets to imports from other countries of the region would be made contingent upon the readiness of these latter to countenance multi-national enterprises, based on intra-regional financing, for the large-scale manufacture of new export products. The share of the capital to be contributed by private enterprise (or by the Government, according to each country's current practice) would be approximately proportional to that fraction of the plant's total output, which was expected to be absorbed by the country in question during the initial phase of operation. In principle, each country's capital contribution would be provided out of its own resources, whether public or private. In practice, however,

in view of the shortage of capital prevailing in most countries, it seemed likely that the capital contribution of future importers of the product would have to be financed with internal loans. The experts from all the countries represented endorsed that formula, which might greatly facilitate government decisions in countries favourable to integration;

(d) The activities which were seen in the course of the discussion to be most urgently needed were of two types. In the first place, reports would be prepared which would take the form of more thorough investigations of the present situation and future development prospects in relation to a limited number of lines of chemical production. Secondly, an attempt would be made to carry out an annual statistical survey of the market situation for a similarly limited schedule of products in all the Latin American countries, with the cooperation of agencies in those countries themselves;

(e) Lastly, it was recommended that the work of compiling statistical data on production, capacity and foreign trade in respect of chemical products should be continued with a view to periodically bringing up to date the general picture that had been presented in recent ECLA documents; and that the information thus centralized, standardized and analysed should be circulated among all the interested countries once a year.

One aspect of the International Labour Organization's contribution to industrial development may be illustrated by a productivity project in Mexico. Designed to improve productivity through management training the project began in November 1963 with the arrival of an expert, who served as adviser to the Industrial Productivity Centre (IPC). He organized several seminars and training courses for managers and heads of industrial departments on methods of work, production control, financial administration, and general organization and management, and gave practical demonstrations in management training. He also advised the Ministry of Human Resources.

As a follow-up to this mission the Government requested an expert in productivity and management training for the full two years of the 1965-66 biennium.

Mineral resources and related fields of development have also been stimulated with UNTA help.

In Bolivia, a UNTA field geologist has helped to organize the National Geological Laboratory, including the training of national technicians, and a second expert has given advice on mining development and policies, including the preparation of requests for Special Fund projects.

In Panama, a mining geologist is conducting a survey of the Central Provinces in order to make a geological map of this region. Deposits of ferrous and non-ferrous metals have been explored, and the expert has prepared a preliminary draft for a Mineral Survey from which the Government may develop an application to the Special Fund.

Specialists were provided to review existing mining legislation of Ecuador and Guatemala and to make recommendations for its modernization.

D. Agricultural Production

Agricultural economics and assistance to governments in the formulation and implementation of development plans accounted for a considerable share of the key FAO projects in the ECLA region in 1964. FAO agricultural planning economists carried out missions in several Latin American countries including Bolivia, Brazil, Colombia, Costa Rica, Ecuador, Mexico, Panama, Peru, Venezuela, and with the Central American Integration Scheme.

In Bolivia the FAO Agricultural Programmer has worked with the Bolivian nationals concerned, and with the ECLA/TAB/FAO Advisory Group, in the preparation of projects to be incorporated in an operational programme for the agricultural sector within the framework of the new Two-Year Development Plan, a sub-division of the Ten-Year Development Plan 1962-1971.

In Ecuador the FAO Agricultural Planning Economist has been mainly responsible for the elaboration of a detailed and consistent series of targets and projects for the agricultural sector, to complement the Ten-Year Plan for Economic and Social Development which has just been prepared. With the assistance of the FAO expert, a detailed, well-integrated sectoral programme was accomplished - an important step in the progress of agricultural planning, of value not only for Ecuador, but also for the region as a whole.

In Panama the FAO Agricultural Economist has been engaged in the preparation of an integrated development plan for the agricultural sector, while in Peru FAO experts in agricultural planning, including one specialist financed through a contingency allocation, have actively collaborated in the preparation of agricultural projects for the "Programa de Inversiones Publicas, 1964-65" (Public Investment Programme).

All the above experts have also been training nationals of the countries concerned and lecturing on matters relating to the elaboration and appraisal of agricultural projects and on agricultural programming procedures.

Also in Ecuador, another significant FAO project has centred about

the creation of a separate Ministry of Agriculture which would take over this portfolio from the Ministry of Development. The FAO country Representative, who is Agricultural Adviser to the Government, presented to the National Planning Board in April 1964 a plan for the establishment of the new ministry, the necessary legislation was prepared, and discussions are now taking place concerning the structure of departments within the ministry.

In connection with the Central American Integration Scheme an FAO Agricultural Planning Economist is head of an FAO Group, attached to CAIS, which has been collaborating very closely with ECLA in all aspects related to the economic integration of agriculture in the Central American countries. The work and advice of the FAO/CAIS group has gained in practical importance with the functioning of the CAIS Agricultural Development Sub-Committee which began work in 1964.

FAO is also providing technical expertise to CAIS in the field of land use planning. Under the guidance of an FAO expert stationed in Mexico City, maps of potential land uses are being developed. They are intended to provide a basis for integrated and coordinated planning and readjustments of land uses.

At the request of the Government of Honduras, the FAO has, since 1959, provided the services of a soils survey and classification specialist to help evaluate the country's soils and advise on their improvement and better use so as to increase agricultural production on a sustained basis. Particular attention is given to soils survey interpretation, but the expert also assists in the preparation of soil maps of varying scale for selected areas, and appraisal of soil potentialities for crop production. Emphasis is placed on solving problems related to land use and land use planning, soil conservation, watershed management and irrigation schemes. Another important adjunct of this project is the training of local soil technicians in the various facets of soil science, especially in soil survey and classification, soil interpretation, and soil management.

During 1964, FAO furnished to the Andean Advisory Group in Bolivia a specialist in the planning, design, and construction of small irrigation projects which are a part of the national Rural Development Plans. In the course of the year, about thirty such projects were planned and designed, and ten entered the actual construction stage. It is expected that this programme may ultimately be expanded to cover as many as sixty projects. Work is being carried out on a cooperative basis with the landowners, whereby the Government furnishes technical assistance, equipment and material and the farmers provide the labour.

FAO assistance in farm management research and planning is being provided to the government of Colombia. An FAO farm management expert has worked mainly in cooperation with the Corporation for Economic Development of the Cauca Valley (CVC) and the Colombian Institute of Agrarian Reform (INCORA) in conducting various basic studies relating to farm management and in evaluating land use, irrigation and drainage plans; in developing farm plans for improved production and adoption of better farming techniques; and in implementing the programme through extension and advisory activities. His findings and advice have been very well received by the various authorities and farmers with whom he has been in contact and his services are now enlisted for the training and demonstration programme for land settlement in the Department of Boyacá and in assisting the Institute of Social Administration in the farm planning programme in the land settlement area.

In the field of agricultural engineering, a technical officer specialized in the coir and copra industries has been advising the government of the Dominican Republic since May 1964 on the siting of coconut retting and processing units, the many uses of coconut products and the development of handicraft methods of producing tourist articles from the fibre, husks, and split petioles of the palm leaf. From his own native country of Japan the expert has obtained simple machinery with which to mechanize the kitchen brush making industry. He has also been called on for advice

concerning methods of preserving the food value of fresh coconut meat and on methods of drying copra.

Technical assistance in the improvement of marketing agricultural produce was provided under EFTA in 1964 to Chile, Mexico, Venezuela, Ecuador, British Honduras and British Guiana. The experts were mainly concerned with advising on improved methods of assembly, grading, packing, storage, transport and pricing of agricultural products. Particular attention was also given in some countries to the establishment and organization of wholesale markets for agricultural produce. A detailed study was carried out in Central American countries of agricultural and livestock products, with the objective of establishing a common market. In Ecuador a study is being undertaken on the reorganization of the banana export industry, with special reference to the feasibility and usefulness of establishing a banana export marketing board. Detailed advice is being provided to the Government of Chile on the establishment of new slaughterhouses and meat processing facilities.

As was stressed at the FAO's 12th Conference on Fisheries Development and Planning in 1963, fish and fish products are now coming rapidly to the fore as a source of protein foodstuffs, both for direct human consumption and, increasingly, through animal feeding. Scientific fishing methods, including mechanization of vessels, electronic fish finding, oceanographic and biological surveys at sea, and handling, processing and marketing techniques ashore, are constantly being perfected in what is coming to be known as the "fisheries explosion" or the "industrial revolution of the sea." It is becoming increasingly necessary that these technological developments become fully available in the protein-poor areas of the developing nations.

Perhaps the most outstanding example, and one which has received wide publicity, is the remarkable development of the fisheries of one country in Latin America - Peru - which has, in the last ten years, experienced a startling increase from fewer than 150,000 tons to an estimated 7,000,000 tons in 1963, thus taking top place, in tonnage, in world fishery

production. While technical aid if not, of course, responsible for the uniquely productive conditions off the Peruvian Coast, FAO has given considerable assistance to the Government and to the fish meal industry, both as regards the economic problems arising from the release on the world market of large quantities of animal fodder (fish meal) and also in connection with the ability of the resources to withstand intensive fishing. These technical assistance projects have now culminated in the creation, under the Special Fund, of a National Sea Fisheries Institute which has already become self-supporting. Efforts are being made, with help from FAO and WHO, to develop a cheap form of fish protein concentrate for direct human consumption.

The abundance of small anchovy-like fishes extends into the northern part of the neighbouring country of Chile, which in the south has also important reserves of quite different kinds of fish, suitable for direct human consumption. In addition to continuing advice from the fisheries staff at the FAO Regional Office located in Santiago, eight technical assistance experts have, between 1952 and 1963, advised on a variety of specialized aspects of the industry. The earliest experts concentrated on fish resource appraisal and processing while the more recent ones advised on industrial development and marketing. Their co-ordinated work has contributed largely to the building up of the present Fisheries Department in the Ministry of Agriculture, and has led to the creation of a National Fisheries Institute under the auspices of the Special Fund.

In Mexico, emphasis has for many years been on the rich shrimp resources on both the Pacific and Caribbean coasts, worth about \$60,000,000 a year. Since shrimp is an exportable luxury product, the benefit to the country's economy has been financial rather than nutritional, and fishing for domestic consumption has not received the highest priority. Moreover, low purchasing power and inadequate communications have prevented fish from being introduced into the diet in some areas.

In an attempt to cut the vicious circle of low production/high prices/small demand, the Government, through the National Bank of Co-operative Development (Banco Nacional de Fomento Co-operativo), has just completed the construction of a fully equipped fishing port at a cost in excess of six million dollars. The Bank and the Fisheries Department (Dirección General de Pesca) are at present receiving continuing technical aid through a team of FAO experts in the vital fields of fish production development and port management.

Several Governments in Central America have similarly expressed the wish to diversify their fisheries as a source of protein-rich food and to develop measures for conserving their shrimp resources. FAO/EPTA experts have been assigned to work on both these problems in several countries which are rapidly working towards economic integration. These specialists are at present concentrating on resource appraisal, fisheries development, and the training of personnel in Government fisheries institutions on whom the success of the long-term development and conservation measures will depend after technical assistance has performed its task. By courtesy of the Government of El Salvador, a number of national workers from each of the other Central American nations have in turn been sent to work in the fisheries administration there, where methods developed by FAO experts are successfully operating.

From regular programme technical assistance funds, an agricultural planning economist was provided for the staff of the Latin American Development Institute, Santiago, to lecture on agricultural development planning and to assist with curriculum planning and subject matter presentation. For the latter half of the past year, EPTA funds were made available for a senior Agricultural Planning Economist to provide advisory assistance to Latin American member governments, in particular in connection with the development programmes under way in a number of countries of the area, but also to be available at short notice to meet requests on other aspects of agricultural planning.

Two Regional Animal Health Officers for Latin America have been appointed by FAO under the EPTA regional programme, one of whom is stationed in Santiago, Chile, to assist and advise governments of South America on all problems connected with animal health in the region, the other in Mexico City for governments of Central America. These assignments are aimed at coordinating control programmes and preventive campaigns against infectious animal diseases, including parasitic infestations, and coordinating legislative measures concerning animal health from an export and import point of view. The expert in South America cooperates with the Pan-American Zoonosis Centre and the Foot-and-Mouth Disease Centre.

The expert in Central America is assisted in his work by an associate expert from the Netherlands.

The FAO Regional Dairy Training Courses for Latin American countries under EPTA, which commenced in 1963, are jointly sponsored by Denmark, Chile and FAO. Three courses of approximately four months each, have already been held and the fourth is scheduled to begin in March 1965.

During the first three courses, 63 participants were trained from the following countries: Argentina, Bolivia, Chile, Colombia, Cuba, Dominican Republic, Ecuador, El Salvador, Honduras, Mexico, Nicaragua, Paraguay, Surinam and Uruguay.

The courses give basic training in milk production, milk collection, quality control, milk processing and distribution. This first phase of training is followed by the selection of the most promising participants for further specialized training in Denmark lasting from six to twelve months. At present fourteen such participants have been selected from the first and second courses.

FAO has during the past year assigned EPTA experts in palm oil production to the Governments of Colombia and Ecuador. After regional surveys, they have indicated the most promising areas for oil-palm cultivation and have advised on what types of oil palm to plant and on what cultivation practices to adopt. Improved tenera seed was introduced from

abroad and is presently being cultivated. Additionally, private enterprises have been set up for oil-palm cultivation and it is expected that this will contribute towards increased palm oil production.

Lethal yellowing, a disease of coconuts, and a serious threat to the industry in Central America, has been the subject of concerted FAO attack during the past year. The same disease is known to occur in West Africa where it is also spreading at an alarming rate causing destruction and distress. FAO, at the request of the Government of Jamaica, has provided the services of two experts to study the etiology of the disease and advise on control measures. Through the combined efforts of the FAO specialists and those of the Government, considerable progress has been made in checking its spread.

Pasture improvement in Uruguay affords an interesting example of FAO's help in a country dependent mainly on the livestock production from grasslands which occupy some 85% of the country's area. Little improvement was effected during the first half of the century and the country's economic position has been steadily deteriorating.

Since 1954, however, Uruguay has regularly requested and received assistance in pasture improvement under the EPTA programme. Suitable species for seeding of improved pastures and for introduction into the native pastures have been found through numerous tests, and fertilizer requirements and techniques for seeding have been developed. This assistance has contributed directly to the success of the \$7,000,000 programme financed by the World Bank for pasture development by furnishing constant technical advice on the problems encountered. Research in pasture and animal production has been started to put future development on a sound basis, and this is being assisted by Special Fund. A good start has been made on the organization of forage seed production and certification.

Forestry development is yet another field in which FAO reports significant activity during the past year. Pine forests play an important role in the economy of Nicaragua because they represent about one-half of the total forest area which covers 47% of the country. For a long time a prosperous pine timber industry operated in the north-eastern Atlantic Coast area. In recent years raw material for the industry provided from the pine savannah has become scarce because the stands lack sufficient regeneration to replace the harvested large-sized mature timber. Ecological studies carried out in the mid-fifties by the Instituto de Fomento Nacional (Institute of National Development) of the Ministerio de Agricultura y Ganadería (Ministry of Agriculture and Livestock), with the assistance of an FAO ecologist, revealed that this abnormality of the pine savannahs is caused by forest fires.

Practically the entire pine savannah is intentionally burned every year during the dry season. The main reason for this burning by the local inhabitants is to remove the coarse grass cover and to promote palatable growth for grazing. Many fires are also lit to facilitate access to, and penetration of, the areas for hunting, while other fires are set purely for amusement. Natural pine regeneration of these areas is abundant but nearly all seedlings are killed every year by the fires. As a result of these conditions, the pine savannah stands have a uniform structure. They consist only of over-mature trees which have not been killed by the forest fires but physically weakened and are, therefore, increasingly susceptible to any disease and insect attack. In view of the lack of younger trees, management on a sustained yield basis is impossible and consequently forest industries can only operate up to the exhaustion of the present stands.

Several examples in the Atlantic Coast area show that dense pine stands develop rapidly once areas are protected against fire for several years. When this aspect became apparent, the Instituto de Fomento Nacional initiated, upon the recommendation of the FAO ecologist, a pilot fire protection project.

Since 1961, FAO forestry experts with special experience in forest fire fighting have assisted the Instituto de Fomento Nacional in the technical direction of this fire-fighting project. During the last few years substantial capital investments have been made by this Government agency. A permanent base camp with several buildings, workshops and offices was established in the centre of the protected area. A fire-break system with an extension of several hundred kilometres was constructed, and a watch-tower network with radio communications was established. Technical equipment such as tractors, jeeps, fire-fighting tools, etc., has also been purchased and constantly been replaced. As a result of these concentrated efforts 125,000 ha. of pine savannah are now protected from forest fires. During the extremely hot dry season of 1964, some 249 fires were brought under control within the protected area. 4,800 ha. only of pine regeneration were burnt by these fires representing a loss of only 3% of the total area in contrast to an almost complete burning of the unprotected area. The organization of this project is now well established and functioning. Due to the efforts of the Nicaraguan Government a large pine forest area will have been regenerated naturally within a few years and will provide the basis for a rational management and utilization of these forests, fostering the economic development of the region.

The short-term efforts for direct control of forest fires are complemented by a forestry education program implemented by the Ministerio de Agricultura y Ganadería and the FAO forestry expert, who is assisted by an associate expert from the Netherlands. This education programme has been started in one of the departments of the country by arranging forestry instruction courses for school teachers, lecturing on forestry matters in schools and clubs, establishment of school plantations and an information campaign in the local press and radio. This dissemination of knowledge on forestry problems among the local and, in particular, the rural population will contribute considerably, in the long run, to effective protection and economic utilization of the existing forests as well as to the establishment of new plantations.

As a final example of FAO's work during 1964, the First FAO Seminar in Food Technology for Latin America, held in Brazil in November, may be cited. It was organized by FAO in cooperation with the Government of Brazil in order to consider the technical, economic, training and educational aspects of food processing and preservation, transport and marketing, food packaging, food research and other aspects of food technology. The seminar was attended by participants from seventeen countries.

Among the results derived from this meeting is a substantial increase in the efforts being made towards rationalization of storage, processing, preservation, transport and distribution of food products. General guidelines for the introduction of up-to-date techniques in the food industries of the region were drawn up. Applied technological research was emphasized as a means of providing a practical solution to the several problems which the food industry is facing. A policy aimed at avoiding food losses and wastage was formulated and it has been applied by several countries. Several programmes are under way for processing of low-cost protein-rich foods to supplement the deficient diet of the low-income population and practical measures to train technical personnel to work in the food industries are being applied in several universities. Food regulations and control in several countries have been stressed and coordination with the Joint FAO/WHO Programme on Food Standards is under way, and the technical terminology used in different Latin American countries is now more coordinated.

E. Auxiliary Services to Industry and Agriculture

With the progress of international action towards the economic integration of Latin America, the governments of the region are increasingly interested in United Nations technical assistance in the field of trade promotion and marketing.

The Government of Chile requested the assistance of a team of five experts to advise the Chilean Secretariat of the Latin American Free Trade Association. The implementation of this project was started early in 1964 with the arrival of a foreign trade expert who was later joined by an expert in industrial promotion and another in the marketing of agricultural products. The purpose of the project is to study and advise the Secretariat on identification of specific products or production lines of Chile showing comparative advantages with respect to the operation of LAFTA.

Two additional experts are under recruitment: one to advise on the steel industry and the second on the automobile industry. They have been working closely with the Regional Advisory Group on Trade Policies.

An expert in Paraguay, working in close co-operation with the Advisory Group in that country, is helping the Government to development new foreign markets for Paraguayan products and to co-ordinate Government agencies and private organizations concerned with the promotion of exports. The expert was able to recommend a plan of warranty financing to facilitate credit for exporters and at the same time provide adequate storage for perishable goods.

Studies are also being carried out to determine the practicability of establishing a system of price supports for certain commodities. Based on the recommendations of the expert, the Ministry of Industry and Commerce has decided to establish an Export and Foreign Investments Promotion Centre within the Ministry.

It is hoped that the results of a recently conducted national economic census in Paraguay can be used for the preparation of a product market analysis.

At the regional level, a group of three advisers in trade policy was established to assist the Governments of the region, at their request, in matters related to foreign trade, economic integration, and the Latin American Free Trade Association (LAFTA), including the examination of means to promote and intensify the trade of the Latin American region with other regions of the world. Of special value to the Governments concerned was the assistance given by the Group in order to prepare the Latin American participation in the United Nations Trade Conference held in Geneva in 1964.

The Regional Advisory Group on trade policy rendered advisory services to the Governments of Argentina, Colombia, Chile, Ecuador, Paraguay, Peru and Venezuela, on matters related to (a) the general situation of each member country vis-à-vis the other belonging to ALALC; (b) evaluation of the aspects of housing in Latin America, to co-ordinate better their programmes. As a result of such recommendation, steps are being taken for an inter-agency meeting to be held in Washington early in 1965, in which would participate major agencies, including private foundations from the USA, which are concerned and actively working in the field of housing in Latin America. Detailed recommendations were also made concerning the essential function to be carried out by housing banks and housing agencies in the countries of the ECLA region. The urgency for improving and streamlining the national mechanisms for internal financing of housing was recognized.

In response to a request from a group of Latin American countries which expressed a desire for help in the organization, administration and development of cooperatives, the ILO appointed a regional adviser, based in Mexico City, who visited and advised the following countries:

Dominican Republic, Honduras, Nicaragua, Panama, Paraguay, Peru, Puerto Rico, Uruguay and Venezuela. His main work was focused on advice to Governments which requested his help in the preparation of preliminary draft legislation on cooperatives. In Peru, the expert helped to organize the new National Office for Cooperative Development. In Venezuela, he advised the Ministry of Labour on the re-organization of the Department of Cooperatives and preparation of new programmes for the development of the cooperative system. In the Dominican Republic he drew up a cooperative training and education programme. In other countries, such as Honduras, Panama and Uruguay, he delivered a series of lectures on Cooperation. In Paraguay, he has been studying requirements for the preparation of a national technical assistance project in the cooperative field, which has already been requested by the Government of that country.

The expert has also maintained contact between the main Latin American co-operative organizations and the ILO headquarters.

The field of vocational rehabilitation is one in which the ILO has provided considerable and effective assistance to the government of Argentina over the past four years. In 1960 the National Rehabilitation Commission, which had previously emphasized medical rehabilitation, devoted funds to the companion task of vocational rehabilitation and applied for technical assistance from the ILO. Under the EPTA programme, an expert was provided who served from November 1960 through December 1964. He was joined by a second specialist in vocational rehabilitation from August 1962 - September 1963. Training and pre-vocational assessment equipment was purchased under a funds-in-trust arrangement with the Argentine Government.

The experts' terms of reference were to advise the Government and the National Rehabilitation Commission on setting up a national programme of vocational rehabilitation, to establish a vocational rehabilitation centre having the necessary services of selection, pre-vocational assessment, vocational guidance, vocational training and placement, to advise on the co-ordination of the activities of governmental and private organizations and to train the necessary counterparts and local staff.

A small but effective pilot vocational rehabilitation centre has been functioning for some time providing the essential vocational rehabilitation services, including training facilities in woodwork, boot and shoe repairing, tailoring and mechanical trades. Plans and programmes have been prepared for a larger, more ambitious centre with residential accommodation and rehabilitation facilities for

some 300 disabled persons when economic conditions permit. A far-reaching survey of industrial conditions has been made, an extensive programme of employer relations carried out and a placement office set up. Staff training courses were held, manuals of procedure and method were drawn up and counterparts fully trained to take over. Governmental and private organizations have been advised and assisted and a programme to co-ordinate all their activities put into effective operation. The outline of a national programme has been left with the Government and the National Rehabilitation Commission to put into operation when the time is opportune.

In February 1964, the Government of Costa Rica requested Unesco assistance in investigating the volcano Irazu which had been in eruption since April 1963, inflicting serious damage to agriculture, particularly to coffee crops, in the surrounding country. Unesco arranged at once to send a mission composed of an eminent volcanologist, a geochemist and three geophysicists, together with the necessary equipment for observation of the volcano. The mission arrived in Costa Rica on the 25 February, and within a few days it succeeded in setting up, with the effective help of the Costa Rican Electricity Authority, an observatory located near the rim of the crater, at which the seismic activity within the volcano was continuously recorded.

The mission immediately drew the attention of the Government to the danger of mud flows (Lahars), due to the accumulation of thick layers of volcanic dust on the slopes of the volcano during the dry season. The city of Cartago, in particular, was in an exposed position, and with the approach of the rainy season, there was a steadily increasing danger of severe damage and loss of life in that city.

Following the advice of the mission, the Government organized a warning system and evacuation scheme for the city in the event of mud flows; it also undertook works aimed at diverting mud flows away from the city. During the summer of 1964, several mud flows did in fact occur, but Cartago suffered no damage or loss of life.

F. Health Services

During 1964 the Regional Office of the World Health Organization for the Americas continued its activities in the fields of health protection, health promotion, education and training, planning, research, and information and publications.

The leading trend was the strengthening of the planning process of the health sector in each country and national and local health services.

In the field of health protection, eradication of malaria and of the urban vector of yellow fever continued with varied degrees of success. Smallpox and yaws eradication also were emphasized, as were control programmes against tuberculosis, leprosy, plague, the zoonoses and other communicable diseases.

Environmental sanitation received strong support, particular emphasis having been given to the provision of water supplies for both urban and rural populations. From 1960 to 1964 some \$500 million were allocated to these activities, with approximately one half coming from international lending agencies and the other from national and local sources.

In the area of health promotion, the improvement of general health services was stressed with the aim of integrating and regionalizing them. Medical care as well as maternal and child health, nutrition, administrative methods and practices, and other activities were continued through country and regional projects.

In the field of education and training, assistance to medical, nursing, and veterinary schools was also continued, as were programmes for the improvement of professional education in public health. As in the past, one of the tools to improve the training of technical personnel was the granting of fellowships. From 1 January to 30 September 1964, 460 fellowships were awarded throughout the

hemisphere.

Assistance to research programmes was also continued. At its 1964 meeting the Pan American Health Organization's Advisory Committee on Medical Research analyzed 45 research projects in which 141 consultants and 41 staff members of the Organization had participated.

Four projects have been selected as examples of the wide range of activities undertaken by the Organization: one is the control of tuberculosis on a regional basis; the second is the water supply programme in a rural area of Perú; the third is malaria eradication in Jamaica; and the fourth is an applied nutrition programme in Panamá, in which FAO and UNICEF also participate.

Tuberculosis control programmes in the Region of the Americas are being stimulated and promoted by the regional and zonal WHO advisers. Their execution is the responsibility of the national authorities and national personnel, who are being provided with advisory services by medical and nursing consultants. The fundamental activities carried out within the framework of these programmes are as follows: distribution of information and documentation; drafting of agreements and plans of operation; holding of meetings and seminars; personnel training.

In 1964, PAHO and WHO technical reports and working documents were distributed to the authorities and specialists in the countries. This information dealt with laboratory techniques, therapy, and the organization of services, as related to tuberculosis.

Special attention was also devoted to the establishment of a uniform tuberculosis policy, the adoption of an appropriate model tripartite plan of operations, and the initiation of new joint programmes. As a result of work done in previous years new plans of

operations were signed in 1964 and activities were begun in Bolivia, Costa Rica, Chile (Cisternas), El Salvador, Mexico (State of Queretaro), Nicaragua, Perú, (Junin Department), and the Dominican Republic.

The first meeting of tuberculosis consultants of the Region of the Americas was held in Mexico from 24 to 31 August 1964 and was attended by statisticians, epidemiologists, and health administrators. At that meeting the basic principles underlying the general policy of the Organization in the matter of tuberculosis were discussed; the model plan of operations was examined; the bases for a future decision concerning the adoption of a uniform system of cards for the registration of information and the observation of cases in all countries in the Americas was established; and guidelines for the periodical reporting of activities were drawn up.

The topic of the technical discussions held during the XV Meeting of the PAHO Directing Council, XVI Meeting of the WHO Regional Committee for the Americas, was "Tuberculosis Eradication: A Task for Present Planning and Future Action". Experts from various countries of the continent and staff members of WHO and PAHO took part in the discussions. The participants accepted the idea of eradication as a long-term objective. They considered it advisable to use the term "eradication" since it was a means of galvanizing and reorienting the frequently slow moving and ineffective tuberculosis control activities; of strengthening the hands of Governments by enabling them to make better use of their funds; and of emphasizing the part that tuberculosis control activities should play in national health planning. The working documents of the discussions as well as the final report were widely distributed among the authorities and experts in the countries of the region.

A regional seminar on tuberculosis was held in Maracay and Caracas, Venezuela, from 29 November to 5 December 1964. The seminar, which was attended by about 60 specialists in tuberculosis and public health from all countries in the continent, was devoted to the examination of the following three topics: information required for an appraisal of the tuberculosis problem in a community; planning of tuberculosis control activities; and organization of tuberculosis control activities at the local and national levels.

Of various education and training activities mention should be made of the courses held at the National Tuberculosis Control Centre in Argentina (Recreo, Santa Fe Province). A short course for 12 physicians from Argentina and Paraguay was held in July and August 1964 as well as several courses for nurses and auxiliary nurses.

The progress in rural water supply made in that part of the integrated health services project of the Junin Department in Peru which deals with water supply has been as follows:

The agreement covering this project was signed in 1961 but a start was not made on water supply to rural communities until May 1962.

The Junin Department is situated in central Peru and about 70% of its territory lies in the Andes. According to the 1961 census it had a population of 506,000, of whom 242,000 lived in urban areas and 264,000 in rural areas. Of the total population only 170,000 persons live in the 25 communities with more than 2,000 inhabitants. In Peru, communities with less than 2,000 inhabitants are considered to be rural communities; those with more, urban communities. Ninety per cent of the population are of Indian origin and are mainly engaged in agriculture.

The health infra-structure of the Department consists of three health centres, one of which is situated in the Capital, Huancayo, one in Tarma, and the other in Jauja. These health centres are each manned by a medical officer, a sanitary engineer, nurses, and health inspectors.

When the project was begun, the Ministry of Public Health and Social Welfare was already preparing a national rural water supply programme. It was, therefore, agreed that the works to be carried out in Junin should provide basic data, information, and experience which could be applied to the rest of the country covered by the national plan. The country had little experience in the financing and administration of rural water supply systems, but it was deemed advisable to try to obtain as much community cooperation as possible in constructing and administering the systems. With this end in view a promotion campaign was launched in which health inspectors who had trained in Junin at the beginning of the project were used. The communities were asked to contribute as their share of the project between 30 and 50 percent of the cost, in the form of labor and locally available materials, as well as an initial cash contribution, and to agree to pay a water rate which could be used to cover the operational and maintenance costs and the amortization of the loan.

Local committees were set up, and agreements were signed with each of the communities covered by the project.

Most of the water supply systems constructed consisted of a protected source of water, generally a spring; a main waterline which carries the water by gravity from the source to a cement storage chamber; and a distribution system consisting of public hydrants with sufficient capacity to allow house connections to be made.

In order to reduce the costs, the topographical work was carried out by the health inspectors under the supervision of the sanitary engineer of the health centre. The basic design data are as follows: Daily per capita demand, 100 liters; daily minimum demand factor, 1.2; minimum hourly demand factor, 1.5; minimum pressure, 15 pounds per square inch.

Most of the piping used consists of two and three inch plastic pipe. A system of average size usually calls for about 1500 meters of piping. Each public hydrant serves 80 persons on the average.

The per capita cost of these systems is approximately \$8, or the equivalent of 11 days' wages in the area. The design cost is about \$85; the cost of protecting the sources varies from \$250 to \$400; and the average cost of a public hydrant is \$12.

Management committees organized in each of the communities are responsible for the administration and supervision of the services. Each committee has three members - the mayor of the community, the chairman of the local council, and a third person appointed by the community itself. The committee appoints an administrator for the system and is governed by regulations approved by the community.

This committee fixes the water rates, which in Junin vary from \$0.10 to \$0.20 per family per month for the use of a public hydrant, and from \$0.30 to \$0.40 per month in the case of domiciliary connections. This water rate has to cover the salary on a part-time administrator (between \$3 and \$6 a month), administration and maintenance costs (from \$2 to \$10 a month), and the amortization of the debt; in other words the difference between the share of the total costs which the community undertook to raise and the contributions in cash, manpower, or materials provided during the construction of the system.

At the present time, water supply systems have already been completed for nine communities with a total population of 8,013 inhabitants. Systems that will ensure water to six other communities with a total population of 5,794 persons are in the process of construction and the necessary designs have been prepared for work in a further eight communities. In the systems already constructed, water is supplied by means of 87 public hydrants and 26 domiciliary connections. Almost all the systems constructed are meeting their financial obligations on time and show a favourable financial balance.

The programme is a joint activity of the Ministry of Public Health and Social Welfare of Peru, the Peruvian Economic Development Fund, PAHO/WHO, and UNICEF.

The programme is considered to have achieved its objective, namely the design and construction of rural water supply systems which would be efficient, simple and cheap and in the construction of which the widest possible use would be made of local manpower and other resources. This experience has been of great help in drawing up a national water supply plan for rural areas. The plan has received a loan from the Inter-American Development Bank in the amount of \$1,700,000 and is being implemented by the Ministry. The programme has also shown that it is possible to obtain suitable cooperation and financial contributions from rural communities and that they can take on the responsibility for administering and maintaining the systems constructed.

Finally, the Junin project continues to serve as a training centre for the environmental sanitation personnel of the Ministry.

After many years of partial malaria eradication control programmes, Jamaica adopted the policy of eradication and began the preparatory phase in 1957. By January 1958, the attack phase was initiated with an annual cycle of house-spraying with dieldrin. Unfortunately, in December it was discovered that the vector, Anopheles Albimanus, was resistant to dieldrin in some parts of the island and a change was made, as rapidly as possible, to DDT. With DDT it was necessary to spray the entire malarious area (87% of the island) twice a year rather than once. By September 1959 the change-over had been completed.

Attack phase employing the standard basic technique of house spraying continued throughout June 1960, while at the same time, epidemiological evaluation by collection and examination of blood smears and by entomological investigation was perfected. On the basis of this evaluation a group of five parishes (of a total of 14) were placed in consolidation phase in July 1960, and spraying was discontinued in them.

By the end of 1960 an additional area was put in consolidation phase, and this goal was achieved for the entire island on 31 December 1961, when routine spraying could be completely stopped. The record of houses sprayed throughout the attack phase is shown in table 1, by spraying cycle.

TABLE 1. Spraying Operations.

Cycle	Period	No. of houses sprayed	% houses sprayed	Insect. used
1st.	Jan-Dec. 1958	271,514	97.3	DLN
2nd	Jan-Sept. 1959	270,181	97.4	DLN and DDT
3rd	Oct. 59-March 60	269,225	96.6	DDT
4th	April-Sept. 1960	241,046	95.1	DDT
5th	Oct. 60-March 61	144,428	95.9	DDT
6th	March-Oct. 1961	89,080	95.4	DDT

Surveillance continued, using wide-spread collection of blood smears from persons with fever or a history of recent fever, epidemiological investigation of cases found, and emergency spraying and/or chemotherapy to clear foci discovered. In a total population of 1,685,000 (mid-1963), blood smears examined and cases found were as shown in table 2.

TABLE 2. Blood smears examined and positives found

Year	Blood smears examined	Total positives	% positive
1958	56,266	205	0.36
1959	39,276	371	0.94
1960	184,534	135	0.07
1961	292,901	31	0.01
1962	246,592	2	0.0
1963	185,459	3	0.0
1964	80,428	0	0

The results of the campaign were highly satisfactory. The last case of Plasmodium falciparum was reported in June 1961. Since then a very small number of P. malariae cases have been discovered by the efficient case-finding system. No autochthonous case has been discovered since the third quarter of 1960.

Evaluation of the programme and its results has been made by a team of outside experts and the final report, on the basis of which Jamaica will be registered by PAHO as having achieved eradication of malaria, is nearly completed.

G. Education and Science

Educational planning has been given the highest priority in the educational programme of Unesco. Action in this field follows three principal courses: training of specialists, research and advisory services. Training and research are carried out in cooperation with the Santiago Institute for Economic and Social Planning. Advisory services are the responsibility of Unesco.

Since October 1963, the following activities have been accomplished in the ECLA region: three meetings were held in Santiago between 28 November and 20 December 1963: the first for technical assistance experts engaged in educational planning activities in Latin America, the second for heads of national educational planning offices in fifteen Latin American countries together with a number of Unesco experts, and the third a training seminar for the same heads of educational planning offices in the region organized by the Santiago Planning Institute with the cooperation of Unesco. A seminar on "Problems and Strategies of Educational Planning in Latin America" was organized by the International Institute for Educational Planning (Paris) in May 1964, with the attendance of fifteen participants from Latin America financed by the EPTA contingency fund; members of the staff of the Santiago Institute were also invited.

In August 1964 a three-month course was held in the Santiago Institute for the training of personnel from national educational planning services; of the forty-three participants, five received Unesco fellowships, from technical assistance funds and one from regular funds.

Research has been undertaken by the Santiago Planning Institute on the methodology of educational planning and its adaptation to Latin American conditions; with respect to the development of an adequate system of information on the educational situation and its prospects; about the factors which determine efficiency and its prospects; about the factors which determine efficiency and productivity with which the educational system works.

Under the country programmes, 19 experts in educational planning, administration and related fields have been working in Latin America during the period October 1963 to November 1964 and in several countries the experts have contributed to the preparation of national educational plans.

In Ecuador an overall educational plan was prepared during 1963/64. The objectives of this plan are to extend primary education to all children in this age-group by 1970, a radical reform of secondary and technical education, and a wide literacy campaign for the adult population. This plan has been integrated with the Economic Development Plan of the country. Three Unesco experts have collaborated in its preparation.

In Colombia a joint Unesco/USAID mission began its activities early in 1964 in order to prepare, in cooperation with national personnel, an overall education plan. The main characteristics of this plan, which is well advanced, are: the structure to be given to the school system; the expansion and qualitative improvement of primary education; the expansion of secondary education; the formulation of an extensive fellowship programme; the preparation of a programme along general lines for adult education; the preparation of a project for the reorganization of the educational administration; the revision of the financing system. Three Unesco experts are cooperating in this plan.

In cooperation with the International Development Association, educational programming investment missions have been sent to Brazil, Chile, Jamaica, Trinidad and Tobago, British Honduras, Peru, Dominican Republic and El Salvador. In the case of Peru, the Inter-American Development Bank was also associated.

A Regional School Building Centre for Latin America was set up in 1963 in agreement with the Government of Mexico. The Centre started its activities with a seminar attended by participants from 21 countries in the region, representatives of the United Nations and observers from OAS and IDB and at which the following points were discussed: the present state of planning of school buildings in Latin America; plans for school buildings in the region; future programme of the Centre. In order to increase the Centre's activity, three new experts posts have been provided from contingency funds: one educator, one documents specialist and one architect.

Unesco has continued to organize nine-month courses each year for the training of Latin American primary education specialists at the University of Chile, Santiago, and at the University of Sao Paulo, Brazil. Fellowships have also been provided for Latin American educators to pursue studies in teacher training and related fields at the University of La Plata, Argentina.

The training of primary school teachers and the improvement of the professional preparation of in-service school teachers, directors and supervisors has continued to receive special emphasis. The Normal Schools of Pamplona, Colombia, San Pablo del Lago, Ecuador, Tegucigalpa, Honduras, and Jinotepe/San Marcos, Nicaragua, held their regular annual training courses and, with the collaboration of resident and itinerant experts in teacher training provided by Unesco, organized seminars and meetings for the benefit of primary school teachers, directors and inspectors in these countries. The

normal schools have obtained particularly successful results as shown by the fact that their new curriculum and organizational patterns are being followed by the teacher-training institutions in their respective countries.

Unesco experts have assisted in the organization of seminars and short training courses as follows: Bolivia - teacher training seminar; Colombia - two courses for inspectors of one-teacher schools; Ecuador - short course for supervisors of one-teacher schools; El Salvador - short course on mathematics teaching; Guatemala - two short courses for primary school supervisors; seminar on curriculum revision; course on one-teacher schools; seminar on primary education in rural areas; Honduras - course for directors and course for supervisors of primary schools; Nicaragua - short course for directors of primary schools; short course for rural school teachers; Peru - seminar on one-teacher schools; Venezuela - short course for school supervisors and normal school teachers.

Within the framework of the Andean Indian programme, a national seminar on adult education was held in Bolivia in March 1964, and a sub-regional seminar in the same field with participants from Bolivia, Ecuador and Peru was held in Lima, Peru, early in November 1964 at which Unesco experts from Argentina, Bolivia, Chile, Ecuador and Peru were present.

Technical Assistance and Regular Programme experts in the region have collaborated in the development of UNESCO/UNICEF assisted projects throughout the region. Projects are now in operation in Bolivia, Brazil (2), Colombia (2), Ecuador, El Salvador, Guatemala, Haiti, Honduras and Peru, and in the planning stage in British Honduras, Chile, Costa Rica, Nicaragua and Paraguay.

In Ecuador the programme has interesting objectives and appears to be developing in a satisfactory manner. The main elements of the plan are: to develop and upgrade the training of school teachers, especially in the rural normal schools; to encourage and modernize the study of sciences, beginning in the primary grades; to encourage practical training in home economics for girls and carpentry for boys; to improve the technical training of qualified teachers by providing audio-visual aids and library facilities; to improve the system of supervision and to train school supervisors; and to produce educational materials for primary schools, normal schools and supervisory personnel through the direct guidance of the Instituto Nacional de Capacitacion y Experimentacion Pedagogica (INCEP), a specialized agency established by the Ministry of Education to promote improvements in the teaching system.

One of the most interesting accomplishments is the provision of scholarships for Indian students to undertake teacher training studies and also the orientation given to the improvement of science teaching. The contribution of Unicef has permitted a great extension of the San Pablo del Lago Normal School activities and has begun to be extended to other normal schools.

In 1963 a Unesco expert aided the educational authorities of Venezuela in the field of educational research by drawing up a plan for the establishment of a Venezuelan National Institution of Educational Research and Documentation, a plan for training of personnel to cover the period up to 1966, and plans for the continued supervision of the project's development. In 1964, three members of the group of educators who worked with the expert during his mission were awarded Unesco fellowships to complete their training with the expert at the University of Birmingham, England. On their return to Venezuela they will assure the continuity of the programme.

A Seminar on Educational Television was organized in Mexico City from 8 June to 4 July 1964 for Member States of Latin American countries and the Caribbean region. Its main purpose was to contribute to the development of educational television in all its forms of education and instruction - from pre-school level to university education - and for all kinds of out-of-school education and dissemination of knowledge. The course, the first widely represented meeting on educational television to be organized by Unesco in this region, also offered to professionals from the various countries the possibility of exchanging experience.

The Inter-American Committee for Agricultural Development (CIDA), which is made up of representatives of OAS, IDB, FAO and ECLA, is carrying out, in cooperation with Unesco, a long-term study of agricultural education, research and extension in Latin America. The objectives of the study are to determine the qualitative and quantitative contributions required from agricultural education, research and extension in the preparation and implementation of development plans, and to ascertain the adequacy and effectiveness of existing facilities for the development of human resources in these fields. On the basis of this survey, the objective is to suggest policies and prepare plans for strengthening education, research and extension in the Latin American countries.

Unesco has put at the disposal of this study the services of technical assistance experts working in various Latin American countries, particularly Ecuador, Guatemala and Venezuela. These experts are working in cooperation with other Unesco experts in educational planning, and national authorities on such problems as requirements of teaching staff, programmes of studies, curriculum development and teaching materials. The work is being done on the basis of questionnaires and other methods of enquiry prepared by

CIDA in cooperation with Unesco. It is expected that periodic reports will be published on the results of the survey. 1963 was the last year in which the Inter-American Rural Education Centre at Rubio, Venezuela functioned as a regional centre. Unesco provided, under the regional programme, the services of two teachers, one in school supervision and administration and one in rural sociology and community development, and awarded fifteen fellowships to educators from the region for attendance at the ten-month course. The centre made a significant contribution to the professional preparation of teaching and administrative personnel for the rural education services in the region. Over 500 Latin American educators have followed specialized training courses at the centre.

In Chile an expert is working in the State Technical University, Santiago, organising curricula and classes in technical education for industry. He also advises the Government on this subject.

In Ecuador the services of an adviser in technical education were provided to the Ministry of National Education for a period of fourteen months. The expert produced a report for whose implementation the Government has requested another expert for 1965/66.

A short-term mission to survey technical education and advise on its development was carried out in 1964 in Jamaica.

The Government of Mexico, in association with the Bank of Mexico, has been operating for some years a large programme aimed at upgrading the teaching of applied science subjects in technical institutes and universities. In 1963/64 fifteen fellowships were offered under the EPTA programme to assist in this effort, and two experts in industrial engineering and one expert in chemical engineering have been advising the Government.

A short-term mission of three consultants was sent to Caracas, Venezuela, in September 1964 to assist in the creation of a National Research Council. The mission studied a preparatory report submitted by the Venezuelan authorities and made recommendations concerning the legal status, functions and structure of the Council. It further suggested the main policy lines for the formulation of the programme of work of the Council.

Special post-graduate training programmes in science of one-year duration have been set up under Unesco sponsorship in a number of high-level scientific institutions in Europe for the benefit of teaching and research staff of universities and laboratories in developing countries.

Training courses and seminars have been established in the fields of geology, biology, engineering, physics and chemistry.

Under Unesco's regular programme, a project was carried out in 1964 when a Unesco sponsored physicist visited Argentina, Brazil, Chile, Mexico, Peru and Uruguay and delivered lectures at universities on electronic computation and programmed instruction, bionics, numerical computation, etc. At the same time, he collected information on the specific needs of Latin American scientists for further training with a view to establishing in his University in Madrid, a post-graduate training programme under Unesco sponsorship which will start operations in 1965.

Assistance to the Latin American Centre for Mathematics, Buenos Aires, Argentina was continued under EPTA in 1964 in order to provide advanced training to Latin American mathematicians. Four specialists in higher mathematics of international reputation carried out missions of three to six months' duration. Moreover, several fellowships were provided to Latin American mathematicians outside Argentina.

As part of the general development scheme for North Eastern Brazil, an EPTA-financed programme was started in 1954 to provide long-term assistance for the development of geology and hydrogeology in this area.

Expert assistance to the project has continued and is concerned with research into the mining and ground water resources of the vast dry zone of the North East covering an area of almost one million square kilometers.

Regular courses on underground hydrogeology are given at the University of Recife and two fellowships have been granted.

A one-year project in physics teaching has just been concluded in Brazil. The first phase was financed from Unesco Regular Programme funds, but its continuation was made possible by retaining some of the Unesco experts under the Technical Assistance Programme. The project was undertaken in Sao Paulo from July 1963 to July 1964 with the participation of twenty-five physics teachers from eight Latin American countries. At the conclusion of the project these teachers had produced an integrated set of learning materials on the physics of light: books in programmed instruction form some fifty hours of instruction; kits of inexpensive laboratory materials; short silent films and one long sound film; and a teacher's guide for the use of the short films produced by the project.

The utilization and testing of these materials in Latin America will proceed under the guidance of teams of participants and further assistance in the form of experts, equipment and fellowships could provide a very useful follow-up.

The purpose of the Latin American Social Science Faculty (FLASCO) at Santiago, Chile is to offer intensive post-graduate education in sociology with a view to training teaching staff for Latin American universities. Approximately twenty to twenty-five students graduate every two years.

In 1963/64 Unesco provided two experts, two assistant experts and ten fellowships under the Regular Programme, as well as one short-term mission of three months under EPTA. In line with the general policy followed by Unesco, planned assistance to the institution will come to an end in 1969.

In 1964, negotiations continued concerning the establishment of the new Latin American School of Political Science and Public Administration which is shortly to be set up as a part of FLASCO, with the financial assistance of the Interamerican Bank for Development.

The Latin-American Social Science Research Centre at Rio de Janeiro, engages in research of an inter-disciplinary and regional character and concentrates on documentation in this field with the purpose of stimulating cooperation among institutes and social scientists working on a national level. Research projects include studies, notably on stratification and social mobility, urban and agrarian structures, education and development, and the role of industrialists in Latin America. In the field of documentation, publications include a bibliographical bulletin and the quarterly *America Latina*, as well as bibliographies in areas of particular interest to Latin American social scientists, e.g. rural sociology, rural communities and African cultural influence in Latin America.

H. Community Development

The United Nations Bureau of Technical Assistance Operations reports that there has been an increasing tendency for Latin American countries to request technical assistance in the field of community development.

Technical assistance has taken various forms according to the needs of the countries and the existing efforts of the people towards development activities. Country experts have been provided for limited projects as well as regional services, such as the Centro de Educación para el Desarrollo de la Comunidad en America Latina (CREFAL) and the Andean Indian Missions. The functions of the advisers have included, among others, assistance on overall organization for community development and its integration in the government administrative structure, advice on specialized aspects such as training for community development, research and the improvement of municipal administration.

Of special significance in the period under review were the UNTA evaluation mission to Venezuela and the fact-finding mission to Barbados, Jamaica, and Trinidad and Tobago. The most important results of the former mission were the proposal to set up a training centre for community development workers with Special Fund assistance and the recommendations for expanding, institutionalizing and consolidating community development operations into a national programme. The latter mission served to highlight the changes which were needed to enable rural development programmes to realize their new and greater potentialities following political independence in these countries.

A community development expert serving under the UN Regular Programme in Ecuador, is actively helping local officials draft and revise the Rural Development Plan of Ecuador; assisting officials in the reorganization of the Andean Indian Programme in connection with the nationalization of the Andean Mission; co-ordinating the extension of the programme to new operating areas; and co-ordinating agrarian reform and colonization activities with the newly created Institute of Agrarian Reform and Colonization.

In some countries, technical assistance in this field is provided through a team of experts. For example, Colombia has two experts who are appointed under the UN Regular Programme, and one associate expert. One of these experts is concerned with integrating community development programmes in the economic development plans, the second with field research in a particular area prior to the introduction of the community development programme, and the third in the training of field workers for community development. In Mexico, one expert is attached to the office of the Presidency dealing with community development and urbanism, while two others are assigned to pilot projects in two States.

The United Nations, through the Economic Commission for Latin America and UNTA, held in Santiago, Chile, in June 1964, a Latin American Seminar on the Role of Community Development in Accelerating Economic and Social Development. There were in attendance 15 participants from nine countries of the ECLA region, three UNTA country experts in community development, one consultant, representatives of the United Nations Headquarters, ILO, FAO, UNESCO, and the Latin American Institute for Economic and Social Planning and a large number of observers.

The seminar was part of a series of international and regional projects in this field such as the Workshop on Organization and Evaluation of Community Development held in Quito in December 1962 and the Expert Group on Community Development held in New York in 1963. This Seminar

was conceived and organized as a high-level technical meeting among national planners and promoters of social development on the question of participation by the population and the application of community development principles in the efforts of the Latin American countries to accelerate economic and social development.

The seminar had before it three working documents and ten reference documents. These, as well as the discussions, reflected the growing interest among planners and policy makers in the study of problems of popular participation in general development plans in Latin America and the objectives of the United Nations Development Decade to motivate and channel popular participation in economic and social progress.

In the course of discussions in which economists and sociologists took part, the Seminar analysed the possibilities of applying community development principles and methods on a nation-wide scale. Consideration was also given to the problems that customarily arise in connection with the application of such methods, as well as to the prospects for closer co-ordination of the efforts made by national planners and specialists in social affairs in pursuit of their common objective - economic and social development. The sociological implications of economic and social development were likewise passed in review. It was recognized that for the Latin American countries, at the present time, development is not a purely economic phenomenon but entails changes in the national society itself and in its members. Stress was laid on the fact that community development embodies certain possibilities of positive value for the acceleration of development in general, such as the following: (a) that of basing development activities on co-operation between the population and the government; (b) that of inculcating in the population attitudes, motivations and images favourable to economic and social development; (c) that of providing a really suitable instrument for the promotion of self-generated development at the local level; (d) that of

establishing a system of two-way communication between top-level government and planning circles and the population that produces, consumes, saves and attains certain levels of living and of social conditions; and (e) that of helping to buttress and consolidate the progress achieved by the population through the development process.

Unesco continued to support, from regular programme and EPTA funds, the Regional Fundamental Education centre for Community Development in Latin America (CREFAL) which offers two courses of study per year. From November 1963 to January 1964 a short course on functional adult literacy was held for former fellows now occupying posts of responsibility in adult education services in Latin American countries. The regular course on community development was conducted from March to November 1964. A total of sixty-five Unesco fellowships were awarded for these courses, and fellowships were also provided by the OAS. In 1964 it has been possible to offer travel to fellows attending the CREFAL courses, thanks to an increase in the amount of EPTA regional funds made available to the Centre.

The service of five Unesco experts has also been made possible by EFTA Regional funds, and professors are lecturing in the fields of adult literacy, educational methods and organization of teaching programmes, rural economy, recreational, cultural and artistic activities and social sciences.

In the field of education for community development, Unesco has continued its close cooperation with the ILO and other specialized agencies in the implementation of the Andean Indian Programme. Under the country programme, Unesco has provided the services of experts in rural and adult education and community development to Bolivia, Chile, and Ecuador and, from contingency funds, to Argentina.

The nutritional needs of Latin America continued to receive the attention of several United Nations agencies during the past year.

A number of Latin American, including Caribbean, countries have developed FAO/WHO/UNICEF-assisted applied nutrition projects since 1958. These projects are, in most instances, an expression of integrated services, e.g. health, education, agriculture and community development, which are carried out by governments with the technical and financial assistance of FAO, WHO and UNICEF. The aim is to increase the production and consumption locally of the protective foods, e.g. eggs, poultry, milk, fruit, vegetables, legumes and fish, and to encourage this through an educational programme in nutrition and related activities, thus helping to improve the standard of living of the people. Eighteen such projects are in operation in seventeen countries in Latin America.

In Panama, a co-ordinated programme of applied nutrition has been functioning since April 1963. The basic plan was prepared through the combined efforts of the Ministries of Public Health, Education, and Agriculture with the cooperation of PASE/WHO through INCAP, and FAO, and UNICEF. Under the established agreement, the

Panamanian government supplies the personnel and other facilities needed to carry out the programme, UNICEF provides the stipends for the training of this personnel as well as equipment and materials, while INCAP and FAO provide technical advisory services and participate in the training of local personnel.

A nutrition survey was carried out in 96 communities of the four central provinces of the country in 1962 to establish a base line for future evaluation of the effects of this programme, and for a better orientation of the activities to be carried out.

This coordinated programme consists of nutritional activities in rural areas through a combined effort of the health centre, the agricultural extension agencies, and the school. In the health centre, nutrition education through nutritionists, nurses, and auxiliary nurses is given to mothers who partake of the centre's various services. In addition, dietary supplements are provided to those in need of them.

In the schools, nutrition education is accomplished by means of a school vegetable garden, classroom teaching using the products of the garden, and a school lunch programme also based on the products of the garden. Children from the 3rd to 6th grades participate actively in the school vegetable garden with the frequent help of the agricultural extension agent, and the parents in some of the communities. Classroom teaching of nutrition and preparation of the school lunch is under the supervision of the teachers, but with the assistance of mothers in some communities.

Previous to the establishment of the programme, all personnel from the three agencies participated in a three-week training course for teachers, which covered basic nutrition, nutrition education in the school, and horticulture.

The present pilot programme has been established in the four central provinces with the participation of 41 elementary schools with 472 teachers and 11,184 pupils, 12 health centres and eight agricultural extension agencies.

The over-all coordination of the programme is handled by an inter-ministerial committee consisting of four members of the Ministry of Agriculture, eight from Education and four from Public Health. Local committees consist of the Director of the Health Centre, the Agricultural Extension Agent, and the Education Supervisor.

During June and July of 1964, an attempt was made to evaluate the results of this programme during its first year. Because no previous experience of this kind was available, this evaluation represents the first effort in this respect, and covers exclusively material gains of the programme. In general, the school vegetable gardens represent the greatest gains. Production of all kinds of vegetables was above expectations, and their utilization in the classroom and the school lunch programme was more than satisfactory. One of the most gratifying aspects has been the establishment of many home vegetable gardens as a result of the school gardens, and the use of their products in over 80 percent of the homes, fewer than 20 percent using them for sale. In the health centres the programme has not functioned as well as expected, mainly because of overworking of all personnel.

It is expected that during 1966 this kind of programme can be extended to 30 additional schools in the same area, and that nutrition programmes in the health centres can be strengthened.

The interest of the Government of Costa Rica in initiating applied nutrition activities was reflected in the request made to FAO under the EPTA programme in 1955 for an expert in nutrition education

and related activities. From that date to 1959, the following activities were undertaken:

- The establishment of a Nutrition Section within the Ministry of Health; the training of the professional and auxiliary staff, and both the granting of fellowships for Dietist/Nutritionists and in-service counterparts, and the organization of nutrition centres where mothers were trained in infant and child feeding, and a voluntary and rotating cooperative organized for the permanent nutritional care of mothers and children of the population from the areas served by the centre. Starting with a few, a total number of eighty centres of this nature have been organized and are at present functioning on their own resources.

The total population benefiting from this programme is estimated as about 120,000 people. A number of short training courses are also given to school directors, teachers, nurses and other people working on welfare activities.

In 1959 a comprehensive applied nutrition programme was organized with FAO, WHO and UNICEF assistance, covering nutrition education, the promotion of local food production, and pre-school and school children feeding schemes, through co-ordinated activities carried out by the staff of the Ministries of Education, Agriculture (Agricultural Extension and Home Economics Services), and Health. The programme was extended in 1962 and 1964 to new areas of the country and, in an effort to consolidate it permanently, has been officially included in the curriculum of the three normal schools of the country and in all the educational curricula of the Ministry of Education in primary and secondary schools. At present the programme is incorporated into the activities of more than 200 primary schools,

about 20 agricultural extension agents and a corresponding number of health centres. Several planning, orientation and evaluation seminars have been held for responsible executive personnel from the various governmental agencies concerned, and through short courses of about three to four weeks' duration more than 1,100 school supervisors and primary school teachers, 30 agricultural extension and home economics agents, and more than 60 persons belonging to governmental agencies cooperating in the programme, have been trained.

The general aim of the programme is to improve dietary habits through nutrition education, and to increase the availability of nutritionally valuable food through the organization of school, family and community gardens, and projects dealing with the raising of small animals. The next step will be to cover the rural area of the whole country. The plan, as a whole, is integrated into the general plans for economic and social development made by the Costa Rican Planning Board. From the appraisals made by international agencies, it would appear that this programme is considered one of the most successful of its kind.

I. Other Social Services

The task of preparing national economic and social development plans has, in recent years, brought home to the authorities of many countries the need for substantial improvements in the quantity and quality of the technical demographic material and, as a result, requests for U.N. assistance in this field are increasing steadily.

Many of the needs are being met by the work of the Demographic Training and Research Centre (CELADE) in Santiago, Chile which, during the past seven years of its operation, has trained more than 100 students from the ECLA region in demographic methodology and analysis. The research programme of the Centre includes an extensive programme of fertility surveys; it also gives technical advice, to the extent possible within its resources, to governments, universities and research institutions in the region. Provision for expansion of this function, as well as of the advanced training programme, has been made through a recently approved external grant of funds. It is important to note that three recent government requests for demographic advisory services under technical assistance were filled by recruitment of CELADE graduates. These projects were in Paraguay, Peru and Uruguay. Another expert is serving the Central American countries under the CAIP programme.

During 1964 several UNTA projects in the social services field were successfully completed. The advisory services to the schools of social work in Bolivia and Mexico were completed with both schools assuming full responsibility for further development of their training programmes. General social welfare advisory services which provided assistance to the Government of Paraguay in the strengthening of the planning, organization and administration of social services programmes were also completed, and as the next step in strengthening the programmes in the latter country, advisers

were requested for more specific aspects, such as social work training.

Training of auxiliaries for the social services continued in Bolivia with the assistance of a training adviser, and the family and child welfare programmes in Colombia and Honduras are being extended and strengthened with the assistance of advisers. In Guatemala, the increased attention to community services for family and child welfare was reflected in the use of advisory services in community organization, and Nicaragua has requested the services of a general social welfare adviser.

With the exception of Nicaragua, the programmes in the six countries receiving technical assistance advisory services were also provided material aid by the United Nations Children's Fund as a further means of expanding and strengthening family, child and youth welfare services and developing training for social welfare personnel required for these programmes.

The Committee on Housing, Building and Physical Planning of the Economic and Social Council, indicated at its second session that the training of personnel for the planning and execution of housing programmes for lower-income groups were of primary importance in developing countries. Accordingly, a Study Tour and Workshop on the Organization and Functions of National Housing Agencies for the Implementation of Housing Programmes was sponsored by the United Nations, in collaboration with the Government of Denmark, for Latin American Participants. Held in Copenhagen, Oslo and Stockholm from 30 August to 19 September 1964, it was attended by 25 housing and housing bank administrators from 18 Latin American countries, representatives from the UN Secretariat and four observers. It was followed by discussions at United Nations Headquarters with the UNTA regional housing advisers attached to the ECLA Secretariat who participated also in the Study Tour as team leaders.

A Latin American Seminar on Housing Statistics and Programmes was held in Copenhagen from 2 to 25 September 1962 for the purpose of examining international experience with regard to the formulation of national housing programmes and the Statistical requirements thereof. This Study Tour and Workshop was dedicated to the examination of administrative aspects of the implementation of national housing programmes. The Study Tour and Workshop developed quite satisfactorily. The representative of the Scandinavian housing agencies in the three countries visited by the participants took great care in organizing every detail of the programme and providing complete and detailed information on housing policies, programmes, institutional arrangements and office procedures in relation to government activities in the field of housing. One of the recommendations made at the Seminar was for the international organizations working in the field of housing in Latin America, to co-ordinate better their programmes. As a result of such a recommendation, steps are being taken for an inter-agency meeting to be held in Washington early in 1965, in which would participate major agencies, including private foundations from the USA, which are concerned and actively working in the field of housing in Latin America. Detailed recommendations were also made concerning the essential function to be carried out by housing banks and housing agencies in the countries of the ECLA region. The urgency for improving and streamlining the national mechanisms for internal financing of housing was recognized..

The regional advisers on housing rendered services to the Governments of Ecuador, Honduras, Mexico, Uruguay and Venezuela, and participated as team leaders in the Study Tour and Workshop on Housing Programming for Latin America which took place in the Scandinavian countries between 30 August and 19 September 1964.

Specific country requests have consisted of one from the Government of Chile for a regional planner, continuation of the urbanization expert in Venezuela and of the regional planner in Argentina. As has become the trend in other regions, technical assistance projects are leading into Special Fund projects; thus, the Government of Venezuela has submitted a request for the establishment of a research project at the Centre for Development Studies. A similar development occurred in Argentina where, at the suggestion of a technical assistance adviser, the Government has applied for Special Fund assistance in the establishment of an Institute of Urban and Regional Planning.

The position with regard to technical assistance in the Caribbean region is quite different from that of Latin America generally. There has been an increasing demand from the governments of this region for advisers on physical planning. The team which was advising the Government of Trinidad and Tobago on the preparation of a national physical plan was continued in 1964; a request has also been received from Barbados for a town planner and similar requests have been received from Jamaica and other islands.

In the field of social security, the ILO's assistance to Bolivia continued in 1964 to carry forward a comprehensive programme begun by that Agency as early as 1954 to help the government incorporate into one autonomous body diverse social security schemes. By 1956 there was promulgated a Social Security Code which provides for compulsory social insurance to cover sickness, maternity, employment injuries, invalidity, old age and death, and a scheme of

family benefits, and the National Social Security Fund (NSSF) was established. Throughout this period an ILO expert advised on financial and actuarial problems posed by the new legislation.

The advice of the ILO was again sought in 1960 for a study of the over-all social security situation in Bolivia and, in particular, the ILO consulted on the possibility of overcoming the obstacles impeding application of the Social Security Code. The ILO's principal recommendations were that the Government undertake a general review of the structure and administrative procedures of the NSSF, reorganize the medical-care services of insured persons and revise some parts of the legislation itself, including the provisions relating to the protection of miners.

In order to achieve these goals, the Government of Bolivia again requested advice from the ILO, which assigned to the NSSF two experts to recommend specific measures for the administrative reorganization of the Fund and to assist as far as possible in their implementation.

Both experts worked in Bolivia throughout the 1963/64 biennium. The expert in medical-care services will continue through 1965; the administrative expert post has been programmed through 1966.

Since April 1962, the ILO has advised the Government of the Dominican Republic on matters of labour administration.

Priority was attached to problems relating to the organization and operation of the labour inspection services, and a fourteen-month programme was approved by the Government. An ILO adviser on labour inspection studied the national legislation, recommended some field organization of the inspection operations, improved supervision at headquarters and in the field, advised on procedures for the selection, appointment, classification and promotion of the staff of the inspection department, and on the legislation required

to ensure the recruitment of suitable staff and satisfactory terms of employment. He also helped to introduce suitable procedures for the selection and recruitment of candidates to fill vacancies in the Labour Inspectorate; this is the first time that such a procedure has been employed in the Dominican Republic to fill vacancies in the Civil Service. At the request of the Dominican Government, the expert's assignment has been extended to 31 December 1965.

Another form of social services has been provided by Unesco which assigned an expert in library development to Ecuador for nine months in 1964 to survey the existing library facilities and evaluate the library needs of the country. Working in cooperation with the educational planning authorities, he drew up a library development plan which fitted in with the nation's educational plans. It provides for the establishment of a bureau for the planning of libraries connected with the Department of Integral Planning of Education, for the enactment of a library law, and for the establishment or reorganization of libraries and library schools.

The results of this expert's work will be discussed at a meeting of experts scheduled to be held somewhere in Latin America during 1965. At this meeting the plan and the manner of its implementation will be discussed by representatives from the nations of Latin America from the point of view of its applicability to their respective countries.

J. Peaceful Uses of Atomic Energy

During 1964, the main trends of the previous year continued, with emphasis on the fields of reactor operations and isotope applications, particularly in medicine and agriculture. During the period, work on setting up a new research reactor has progressed rapidly in two countries of the region - Colombia and Mexico - and similar work has continued on the reactor project in Argentina. These activities have called for assistance in the related fields of reactor control and instrumentation, reactor safety, nuclear metallurgy, as well as reactor and health physics. Atomic energy programmes are getting under way in Bolivia, Chile, Guatemala and Peru, where IAEA assistance in 1964 was provided in the fields of medical applications of radioisotopes, nuclear scientific documentation, and radiation protection. With the development of reactor programmes, radiochemistry and isotope production are becoming fields of interest for countries such as Brazil and Mexico, and as a consequence, the extension of isotope applications in industry. An important project has been started in Chile with Agency assistance in the application of radioisotopes to hydrological studies, an area of study which is expected to grow substantially in other Latin American countries in the future.

TABLE I

Cost of Field Programmes in the ECLA Region 1962-1964

(in thousand U.S. dollars)

COUNTRY	1962 (delivered)			1963 (delivered)			1964 (estimated)		
	EPTA	REGULAR	TOTAL	EPTA	REGULAR	TOTAL	EPTA	REGULAR	TOTAL
ANTIGUA	-	-	-	-	-	-	4	-	4
ARGENTINA	416	129	545	448	298	746	469	258	727
BARBADOS	53	1	54	43	-	43	47	13	60
BOLIVIA	561	158	719	662	167	829	536	212	748
BRAZIL	607	126	733	595	577	1,172	561	805	1,366
BRITISH GUIANA	61	74	135	191	26	217	236	79	315
BRITISH HONDURAS	19	39	58	95	43	138	134	56	190
CENTRAL AMERICA REGIONAL	-	-	-	-	-	-	58	-	58
CHILE	1,053	123	1,176	687	342	1,029	910	199	1,109
COLOMBIA	557	161	718	464	411	875	516	452	968
COSTA RICA	105	26	131	126	140	266	213	177	390
CUBA	96	62	158	203	193	396	308	226	534
DOMINICAN REPUBLIC	33	56	89	95	285	380	136	347	483
ECUADOR	568	123	691	481	284	765	547	331	878
EL SALVADOR	191	25	216	183	207	390	172	258	430
GUATEMALA	258	83	341	219	165	384	232	265	497
HAITI	319	85	404	230	234	464	168	277	445
HONDURAS	254	89	343	175	136	311	181	124	305
JAMAICA	81	2	83	184	81	265	96	67	163
LEEWARD-INDIAN ISLANDS	31	-	31	52	-	52	1	-	1
MEXICO	580	218	798	543	522	1,065	778	390	1,168
NETHERLANDS ANTILLES	-	14	14	22	3	25	21	6	27
NICARAGUA	191	72	263	157	250	407	163	238	401
PARANA	123	13	136	168	160	328	173	127	300
PARAGUAY	339	74	413	342	78	420	346	112	458
PERU	516	44	561	430	255	685	553	360	913

TABLE I (cont'd)

Cost of Field Programmes in the ECLA Region 1962-1964
(in thousand U.S. dollars)

COUNTRY	1962 (delivered)			1963 (delivered)			1964 (estimated)		
	EPTA	REGULAR	TOTAL	EPTA	REGULAR	TOTAL	EPTA	REGULAR	TOTAL
PUERTO RICO	-	-	-	17	-	17	6	-	6
SURINAM	13	1	14	39	100	139	21	103	124
TRINIDAD AND TOBAGO	46	8	54	162	35	197	243	58	301
URUGUAY	251	24	275	188	24	212	209	54	263
VENEZUELA	351	48	399	328	262	590	399	276	675
THE WEST INDIES	73	12	85	57	97	154	128	122	250
REGIONAL PROJECTS	<u>1,330</u>	<u>1,545</u>	<u>2,875</u>	<u>1,893</u>	<u>6,524</u>	<u>8,417</u>	<u>1,462</u>	<u>5,823</u>	<u>7,285</u>
TOTAL	<u><u>9,076</u></u>	<u><u>3,435</u></u>	<u><u>12,511</u></u>	<u><u>9,479</u></u>	<u><u>11,699</u></u>	<u><u>21,378</u></u>	<u><u>10,029</u></u>	<u><u>11,815</u></u>	<u><u>21,844</u></u>

TABLE II
Experts Assigned to the ECLA Region 1962 - 1964

COUNTRY	1962 (delivered)			1963 (delivered)			1964 (estimated)		
	EPTA	REGULAR	TOTAL	EPTA	REGULAR	TOTAL	EPTA	REGULAR	TOTAL
ANTIGUA	-	-	-	-	-	-	1	-	1
ARGENTINA	36	10	46	44	20	64	35	18	53
BARBADOS	4	-	4	4	-	4	11	1	12
BOLIVIA	39	13	52	56	8	64	34	15	49
BRAZIL	44	11	55	48	35	83	35	48	83
BRITISH GUIANA	11	11	22	20	3	23	27	3	30
BRITISH HONDURAS	2	7	9	11	3	14	10	2	12
CENTRAL AMERICA REGIONAL	-	-	-	-	-	-	3	-	3
CHILE	75	11	86	61	15	76	60	18	78
COLOMBIA	42	13	55	38	30	68	32	34	66
COSTA RICA	9	1	10	8	12	20	21	10	31
CUBA	12	4	16	17	8	25	15	8	23
DOMINICAN REPUBLIC	4	2	6	12	22	34	8	18	26
ECUADOR	35	5	40	55	18	73	37	22	59
EL SALVADOR	12	1	13	11	9	20	15	15	30
GUATEMALA	16	5	21	16	15	31	15	15	30
HAITI	21	6	27	16	17	33	10	17	27
HONDURAS	18	4	22	12	9	21	15	9	24
JAMAICA	6	-	6	23	8	31	12	10	22
LEeward AND WINDWARD ISLANDS	1	-	1	4	-	4	1	-	1
MEXICO	43	15	58	55	26	81	48	20	68
NETHERLANDS ANTILLES	-	1	1	4	-	4	3	1	4
NICARAGUA	13	4	17	12	13	25	12	13	25
PANAMA	9	1	10	15	9	24	12	7	19
PARAGUAY	21	3	24	23	3	26	26	4	30
PERU	38	1	39	39	12	51	38	36	74
FUERTO RICO	-	-	-	3	-	3	1	-	1
SURINAM	1	1	2	4	8	12	2	6	8
TRINIDAD AND TOBAGO	5	1	6	24	-	24	20	6	26

COUNTRY	1962 (delivered)			1963 (delivered)			1964 (estimated)		
	EFTA	REGULAR	TOTAL	EFTA	REGULAR	TOTAL	EFTA	REGULAR	TOTAL
URUGUAY	22	2	24	18	2	20	21	4	25
VENEZUELA	22	1	23	19	23	42	23	24	47
THE WEST INDIES	7	1	8	-	6	6	11	6	17
REGIONAL PROJECTS	70	133	203	107	497	604	72	519	591
TOTAL	638	268	906	779	831	1,610	686	909	1,595

TABLE III

Fellowships awarded to Nationals of ECLA Region 1962 - 1964

COUNTRY	1962 (delivered)			1963 (delivered)			1964 (estimated)		
	EPTA	REGULAR	TOTAL	EPTA	REGULAR	TOTAL	EPTA	REGULAR	TOTAL
ARGENTINA	45	39	84	12	39	51	36	43	79
BARBADOS	5	7	12	-	-	-	-	-	-
BOLIVIA	38	20	58	16	21	37	27	22	49
BRAZIL	38	26	64	13	43	56	42	62	104
BRITISH GUIANA	3	5	8	4	-	4	18	-	18
BRITISH HONDURAS	2	1	3	5	-	5	-	-	-
CHILE	45	36	81	11	33	44	45	32	77
COLOMBIA	40	40	80	10	25	35	32	40	72
COSTA RICA	11	27	38	10	14	24	24	13	37
CUBA	19	1	20	8	11	19	21	7	28
DOMINICAN REPUBLIC	3	19	22	5	14	19	12	14	26
ECUADOR	36	28	64	13	26	39	29	34	63
EL SALVADOR	30	17	47	20	32	52	37	10	47
GUATEMALA	22	15	37	8	18	26	21	7	28
HAITI	10	12	22	4	5	9	15	4	19
HONDURAS	14	22	36	4	17	21	22	10	32
JAMAICA	12	4	16	-	10	10	6	25	31
LEeward AND WINDWARD ISLANDS	6	15	21	-	-	-	1	-	1
MEXICO	69	31	100	36	46	82	81	39	120
NETHERLANDS ANTILLES	-	-	-	-	5	5	1	-	1
NICARAGUA	6	12	18	-	12	12	12	18	30
PANAMA	5	8	13	6	16	22	16	12	28
PARAGUAY	23	12	35	18	15	33	27	26	53
PERU	15	23	38	8	24	32	26	40	66
PUERTO RICO	-	1	1	2	-	2	-	-	-
SURINAM	-	1	1	5	1	6	7	7	14
TRINIDAD AND TOBAGO	4	7	11	4	10	14	3	6	9

TABLE III (Cont'd)

COUNTRY	1962 (delivered)			1963 (delivered)			1964 (estimated)		
	EFTA	REGULAR	TOTAL	EFTA	REGULAR	TOTAL	EFTA	REGULAR	TOTAL
URUGUAY	13	16	29	1	11	12	15	16	31
VENEZUELA	37	25	62	2	33	35	20	39	59
THE WEST INDIES	-	-	-	-	-	-	-	63	63
REGIONAL PROJECTS	-	-	-	292	162	454	63	71	134
TOTAL	551	470	1,021	517	643	1,160	659	660	1,319

