ECONOMIC COMMISSION FOR LATIN AMERICA

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REPORT ON THE ACTIVITIES OF THE REGIONAL EXPERTS ASSIGNED BY THE UNITED NATIONS OFFICE OF TECHNICAL COOPERATION TO THE CENTRAL AMERICAN ECONOMIC INTEGRATION PROGRAMME*/

- I. ECLA Mexico Office
- II. Permanent Secretariat of the General Treaty for Central American Economic Integration

^{*/} Unofficial English version

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A. ELECTRICAL ENERGY IN CENTRAL AMERICA (Project 04-43)
The following is a resume of the activities carried out by the United
Nations experts on electric energy assigned to the Central American
Programme for Economic Integration. The work of these experts, who constitute the Central American Electrification and Water Resources Mission,
is in accordance with the program established by the ECLA Mexico Office.

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- a) Electrical Development in the Central American Isthmus (Project 04-431)
- 1. This project comprises four principal activities of periodical nature:
- a) To supply technical assistance when required by national institutions of electrical development and by regional organizations of economic integration; b). To prepare periodic reports for the national electric power companies and other national institutions, concerning topics of special interest for them, in regard to the establishment of their policies and development of their electrification programs; c) To impart lectures at the Central American Intensive Courses on Economic Development and Project Evaluation, which are sponsored by the Latin American Institute of Economic and Social Planification, the United Nations Technical Cooperation Office and the ECLA Office in Mexico, and d) To participate in interinstitutional meetings of coordination between SIECA/ECIE/CEPAL, regarding topics of regional infrastructure, and other technical meetings.
- 2. In regard to technical assistance the principal activities and accomplishments can be summarized as follows:
- a) The Instituto de Recursos Hidráulicos y Electrificación (Institute of Water Resources and Electrification) of Panama has taken into consideration, in designing its programs for electrical development, the recommendations made on a study about the national integration of the three regional systems which have been operating independently.
- b) As part of the studies that were prepared on the possibilities of economic cooperation between Belize (British Honduras) and the Central American Common Market, a study was elaborated in 1965 about the development and the problems of subregional electrification in Belize. These surveys are now under the consideration of the government of Belize (British Honduras).

- Institute of Electrical Development) of Guatemala has accepted the recommendations made in 1965 on a study of the proposals made by two consulting firms about the national program of electrical development. This study indicated the convenience of supporting the proposal made by Electrowatt rather than that made by ACRES. This Institute was also assisted in the studies of different alternatives for the development of the integrated central electrical system and of the "Los Esclavos" hydroelectric project.
- d) The Institute de Recursos Hidráulicos y Electrificación (Institute of Water Resources and Electrification) of Panama has closely followed the suggestions made to it in 1964 about internal organization, costs estimates, financial possibilities for hydroelectric projects and electric generation programming. In this aspect it was possible to show that "El Bayano" project could be built at a lower cost than had been proposed by a consulting firm. The project has gone ahead under these new conditions and it will be financed by the International Bank for Reconstruction and Development. It was also recommended that the national electrical organization before mentioned needed to participate in the central electrical market to obtain an autonomous financial basis. This orientation has been adopted in the policy which now follows said Institute.
- e) As requested by the government of Panama collaboration was given to the United Nations Mission, which in 1965 and 1966 was in charge of the studies regarding the possibility of building an inter-oceanic channel at sea-level. This collaboration consisted of a report on the development of water resources and electrification. By request of the same government,

an evaluation was made in 1969 and 1970 of the technical aspects of the treaty projects elaborated by the negotiators of the United States of America and Panama, about the present lock canal and a new sea-level channel.

- f) The Junta Administrativa de Servicio Eléctrico (Administration Board of Electric Service of Cartago (Costa Rica), at its request, was given technical assistance in 1968 on matters regarding the financing of the electrical development of that Province.
- g) Upon request of the Planning Office of Honduras, a study was prepared for the reorganization of the Proveduria Nacional de Honduras (National Supply Office) as part of the technical assistance in the field of public services. This study has been consulted by the authorities of this country.
- 3. Concerning the elaboration of periodic reports, the most important of works are the following:
- a) The Central American Subcommittee for Electrification and Water Resources, since the beginning of its activities, requested the preparation of a series of comparative statistics on electrical energy. Today there exists a well organized system which permits the annual presentation of statistics regarding production, uses and sale of electric energy. These statistics are used in the other basic studies on regional electrical development and in the preparation of the surveys and projections that are made by the national electric power companies, of public or private nature. Although in the beginning of the 60's there did not exist a systematic elaboration of statistics in each of the countries, nowadays the situation

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is different. Costa Rica and El Salvador publish them on a national level; Guatemala, Panama and Nicaragua are now in an advanced process of its implementation and Honduras is studying the manner of publishing them. Once the process for organizing statistics is completed on a national level, their compilation and publication on a regional comparative basis will correspond to the SIECA (Permanent Secretariat of the General Treaty of Economic Integration. At that ime, the objective of ECIA on this matter will have been fully accomplished.

- b) Upon request of the Subcommittee of Electrification, comparative studies between the six countries are made regarding investment costs; efficiencies of production, handling and selling of electricity. This information serves to the electric power companies as a basis for the planification of their electrical development and to the regional organisms for their basic surveys on economic integration.
- c) Since 1968, the national electrical development institutions are given annual information on the evolution of the electrical activity in each of the countries which form the jurisdiction of the ECIA Office in 9/Mexico and biannual information since 1969, about the activities developed and advances accomplished in the national and regional electrification programs and projects. These works have marginal character in the preparation of basic studies and inform about the most important facts which occurred regarding studies of preinvestment, construction of generation-transmission systems, financial, legal and institutional aspects.

 4. Assistance was given to the TLPES (Latin American Institute of Economic and Social Planning), the United Nations Technical Cooperation Office and national organisms of the Governments of Honduras, Nicaragua and Panama,

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during the Third, Fourth and Sixth Central American Entensive Courses on Economic Development and Projects Evaluation, which took place in 1965, 1966 and 1969. This cooperation consisted of lectures given to the Central American participants, regarding technical and financial aspects on the pre paration, evaluation and presentation of specific projects in the electric field. Due to the request made by directors of the national electrification organisms to the ECLA Secretariat, that a regional course be organized by 1971 on technical, financial and budgetary aspects of electric projects, there exists the idea of elaborating an analysis of these aspects, with the purpose of using it in said course and, at the same time, trying to adapt it to the particular conditions of the Central American Isthmus, and later promoting its uniform application on a regional level. 5% The experts have participated in the interinstitutional coordination meetings of SIECA/ECIE/CEPAL on aspects related to regional infrastructure. These meetings were celebrated in 1967, 1968 and 1969, and will take place periodically, with the purpose of avoiding duplicity in this field and in the allocation of technical and financial resources. Also, active part was taken in the Seminar for Directors and Managers of Public Enterprises of Electric Service which was organized by the ICAP (Central American Institute of Public Administration in December, 1969. Besides, cooperation was given to the ECIA Office in the organization and responsibility of the Technical Secretariat of the Third Latin American Conference of Rural Electrification, which took place in Mexico from April 21 to 26, 1969. Also, technical assistance was given to the ECLA Office in 1963 and 1966 on specialized aspects during the eighth and ninth conference periods of the

Economic Cooperation Committee of the Central American Isthmus and its preparatory meetings.

- 6. The regional experts of the United Nations Office of Technical Cooperation, that under the supervision of the ECLA Office in Mexico have participated in this project, are the following:
- i) Regional Expert on Electrical Development. Mr. Francisco
 Malavassi held this post from December 1, 1961 to December 31, 1966. Mr.
 Edgar Jiménez occupied it from January 1st. to December 31, 1967. Mr.
 Ernesto Richa has held it since November 1, 1967. Within this project, it is the responsibility of this post to give direct technical assistance on electrical development, according to the countries' requests; to elaborate and supervise the production of documents related to statistics, costs, activities and evolution of the electrical sector; to impart specialized lectures and attend technical coordination meetings.
- ii) Regional Expert on Electrical Engineering. Mr. Ricardo Arosemena held this post from October 31st., 1963 to December 31st., 1966. During this period he cooperated with the Regional Expert on Electrical Development in the duties mentioned in the former paragraph.
- held this post from January 1st., 1967 to March 31st., 1968. Mr. Ricardo Arosemena occupies this position unofficially since April 15, 1968 and officially since January 1st., 1969. In both cases, the responsibility consists of coordinating the activities of other experts participating in this project and supervising their works, studies and assistance.

Navige Committee Committee (Fig. 2)

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- in charge of these functions from January 1st., 1967 to December 31, 1968. Although the principal responsibility of this expert consists of the works related to the Central American program on water resources, he had to temporarily assume the supervision of the works accomplished on the electrical development project, from April 1st., to December 31st., 1968, due to the resignation of the Regional Consultant on Infrastructure.
- v) Regional Expert on Public Services. Mr. Edgar Jiménez has held this post since January 1st., 1968. As part of his duties, this expert had, until 1969, the responsibility to control the activities in the fields of statistics, costs and other periodic reports. He has the obligation, as do the other experts, to give direct technical assistance to the governments, to impart lectures on specialized courses sponsored by the United Nations and to participate in the technical and coordination meetings that take place in the Central American Common Market.

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- b) Regional Electrical Interconnection Program and Bilateral Projects
 (Project 04-432)
- 7. The Central American electrical integration programme is an ambitious, long-term task, not only because of its newness in the area, and the high capital investment required, but also because of the interests involved in relation to the economic and legal independence of the institutions responsible for electrical equipment, the strategic role of the energy sector in the economic and social development of the countries concerned, the political and technical consequences implied in decision-taking and the inter-relation of the interconnection of central and frontier systems of neighbouring countries in their process of economic integration. The importance of this international programme calls for a slow, but firm, progress in the complementary activities around it, and implies that the studies involved must be elaborated, supervised and directed with a maximum of attention and correct timing.
- 8. The work carried out up to the present in relation to the development of bilateral electric link-up in the Central American Isthmus can be divided into two, well-defined stages. The first stage from 1962 to 1966, was for the purpose of demonstrating to national electrification institutions the technical possibilities, problems and advantages resulting from integrating the main electricity systems of two countries. Several documents were prepared and regional technical meetings were held. These served as the basis for determining the first reactions of the national agencies and for establishing basic criteria for new studies. The work of the second stage commenced in 1967 and is still continuing. It is based on the fact that it

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is considered important by the national electrical institutions to keep the control ing and the state of the state and autonomy of their systems and that their local electricity development programmes not be radically modified. The growth of the central systems in Parker as so he had to lore of the contracted bear of distriction and each of the countries and the devising of more appropriate schemes to bring Constitution of the Consti ា (អាស្រា អាស៊ីនីជាមិល្ខា ស្រាស្ត្រីស្នាស្ត្រី about their link-up under the above-described conditions have interested The reformable to the symptom decay of the control ว จุดจะนำ ผลนาคระได้ the national agencies in this second stage. As a consequence, the possibi-ាជនីសាស៊ី ១០ ខ្លួនសេសសំដែល รทางการทริง ฮ.คโ. การตัวเมื lities for regional link-up are being examined again.

9. As a result of this new approach the executives of national agencies 化二氯烷 医对射性 化二氯二甲基甲醛甲基甲基甲基二二 have recognized the need to establish a regional working group -as a subsian Sangara Sangara (Sangara) dan 18 diary body of the Central American Subcommittee on Electrification and Water Resources- to direct and examine the activities of this project. 1912年1月2日 - 1912年 - 1 . . . Secretariat convened the first meeting of the Regional Group on Electricity and the second of the second of the second Link-up in May, 1968. During its meeting the bases for a Central American of the property of the agreement were established on exchanges and the purchase and sale of elec-tricity, and for a study to include all the alternatives for electricity link-up in the Central American Isthmus. The first part of this study would be to define the existing possibilities between the main central systems. Plans for frontier areas would be left until later on. Four preliminary the same of the reports have already been drawn-up, as well as a study of the regional electric energy market. The first of these reports contains an estimate on a grid og ett. uniform basis of the required hydro-electric plant investments for the 1972-85 period. The next two analyze the main production and cost characteristics appertaining to the additional generation of thermal and hydroelectricity required according to the programmes covering the six countries for the period 1972-85. For each plant, production conditions are

established for normal and critical periods as well as annual capital, operating and maintenance costs. The fourth report contains a technical, economic and financial evaluation of two alternatives generation and transmission additions for four possible cases of bilateral link-up of the main electricity systems of Guatemala-El Salvador. El Salvador-Honduras. Nicaragua-Costa Rica and Costa Rica-Panama. For each alternative the electric energy exchange and the maximum transmission of power between countries is determined, as well as the investments and annual costs, and other economic and financial aspects. These five documents -brought up-to-date and elaborated with the countries' comments on new markets and programmes according to the national electricity development plans- together with the preliminary project for the Central American Pact on the Link-up of Electricity Systems, will be submitted to the consideration of the second meeting of the Regional Group on Electrical Interconnection scheduled for 1970. This Pact was elaborated by the the Permanent Secretariat of the General Treaty with the collaboration of the United Nations' Central American Mission on Electrification and Water Resources.

10. Furthermore, in accordance with the request of the Instituto Costarricense de Electricidad (Costa Rican Electricity Institute) and the Empresa Nacional de Luz y Fuerza (Nicaraguan Light and Power Company), the interconnection of the central systems of these two countries has been analyzed more fully. New data and comments provided by both agencies on the preliminary report mentioned above were taken into account. This new version will be examined in San José, Costa Rica, from the 4th to the 7th of March, 1970, by a working group composed of representatives of the electrical

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agencies of both countries, for the purpose of defining the following 18 stages of this bilateral project. One may also mention that some of the national agencies in the other countries are already requesting consulting companies to take into account the possibilities of electricity link-up with neighbouring countries in pre-investment studies that they are undertaking.

- ll. According to the agreements reached at these meetings, more detailed studies will be undertaken on several subregional and border link-ups. These will be submitted to the Regional Group at its third meeting in 1971. In about 1972 a study will be initiated on the possibilities of interconnection developments between the Central American Isthmus and neighbouring countries, which will include the combined utilization of the ample hydroelectric resources in the border regions with Mexico and Colombia, as well as their effect on the development of the hydroelectric potential of each country.
- 12. The following regional experts of the United Nations' Technical Cooperation Office have participated in this project under the direction of ECLA Mexico:
- 1) Regional Adviser on Infrastructure. Mr. Francisco Malavassi carried out this task from January 1st., 1967 to March 31st., 1968. Since January, 1969, this position has been held by Mr. Ricardo Arosemena. The responsibility of the regional adviser is to coordinate the work of the other experts engaged in this project, supervise their work, and to technically direct the meetings that are held.

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- held this post from December 1st., 1961 to December 31st., 1966; Mr. Edgar Jiménez from January 1st., 1967 to December 31st., 1967 and Mr. Ernesto Richa since November 1st., 1967. The responsibilities of Messrs. Malavassi and Richa have been chiefly concentrated on carrying out the technical studies on electricity link-up and presenting these at various meetings. Mr. Jiménez has dedicated his time in the main to advising the Permanent Secretarist of the General Treaty for Central American Economic Integration in establishing the technical and legal guidelines needed for a regional agreement on exchange, purchase and sale of electric power.
- iii) Regional Expert on Electrical Engineering. Mr. Henri Hassid was assigned to this post in 1962 and 1963, and Mr. Ricardo Arosemena from 31st. October, 1963 to 31st. December 1966. Both experts collaborated with the Regional Expert on Electrical Development, Mr. Malavassi, in the first studies carried out on link-up.
- 7. Because of the size and scope of this project it has proved necessary to have the participation of other short-term experts engaged by the United Nations or provided by the governments of other countries.
- i) Consultant on Hydroelectric Costs. Mr. Jorge Figuls was assigned to this post for three months of 1968, in order to estimate the hydroelectric plant costs for the national integrated systems of the six countries during the 1970-85 period.
- 11) Regional Expert on Planning of Electrical Systems. Mr.

 Rodrigo Suárez was under contract from December 11th, 1968 to March 10th,

 1969, and Mr. Mario Hidalgo from April 28th to July 27, 1969, to programme

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the generating and transmission additions for the independent national systems and for the possible combined systems of the six countries in the 1970-85 period.

of Mexico) provided Mr. Victor de la Peña as General Adviser on Electricity and Javier Jiménez and Francisco Vásquez as electrical development technicians for a total of 24 man-months. The Swiss Government provided Mr. K. Goldsmith and the Swedish Government Mr. E. Lind as General Advisers during different periods of 1969 and 1970. The BCIE (Central American Economic Integration Bank) engaged Mr. Jorge Figuls for specific tasks in 1969 and 1970. The work undertaken by the above-mentioned technician has been supervised by the Regional Adviser on Infrastructure.

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- c) Standardization of Electrical Tariffs (Project 04-433)
- 13. The Central American programme on electricity tariffs got underway with activities of assessment at the national level and, later, studies were carried out at regional level regarding policies and practices of the electrical institutions in matters of tariffs and regulation. The purpose of this programme is to provide basic data and criteria to facilitate the standardization of electricity tariffs in the Central American Common Market, in order to assure the coordinated development of the national electricity markets and to promote regional and subregional integration.

 14. The main technical assistance activities provided at the request of
- 14. The main technical assistance activities provided at the request of the national bodies for the development and the regulating of electric energy can be summed up as follows:
- a) In 1965 and 1966 a study was made for the INDE (National Institute for Electrical Development) to determine the principal factors in the tariff negotiations between the Institute and the Electricity Company of Guatemala, and to devise a method for the fixing of tariffs. The various recommendations made were used on the Institute as a basis for sales and purchasing contracts with the Electricity Company, and for the setting up of their present tariff policy. In addition, there has been collaboration with this Institute in the preparatory work leading up to the creation of a national organization for regulating electricity companies. A document was prepared in 1967 containing a scheme for electricity regulation, an institutional plan which would be suitable for Guatemala and a review of Latin American experience in this field. This document, and the assessment given to the Institute in the following two years, have serve as basis for the

elaboration of the legal project which has been elaborated for the regulating 20/ agency. Once an agreement is reached on the necessary reorganization of the Institute, if it is also to act as the governing body of electricity services, this project will be presented to the public authorities concerned for their consideration.

- b) In 1969 direct technical assistance was given to the SNE (National Electricity Service) of Costa Rica in setting up the technical and legal bases in order to change it into the Costa Rican Institute for the Regulation of Public Services. (It is at present limited to the electrical energy sector).
- c) In 1968 and 1969 an assessment was given to the Nicaraguan authorities in the setting up of the National Energy Institute, responsible for regulating the public electricity supply. This Institute commenced activities in 1969 and will require further technical assistance during 1970.
- d) In 1969, assistance was given to the Panamenian National Commission for Electric Power, Gas and Telephones, particularly in drawing up audit systems for the supervision of the companies providing public services which come under its control. This Commission was reorganized in 1969, and will require further technical assistance.
- 15. On the basis of the recommendations of the Central American Subcommitte 21/for Electrification and Water Resources at its third session—a comparative report was prepared on electricity tariff policies in the Central American Isthmus, which covered several proposals for a gradual process of standardization. The ECLA Secretariat convened the first meeting of the Regional Working Group on Electricity Tariffs in May, 1968, for the regional

examination of this study. At this meeting basic policies concerning tariff structure were decided and the preparation of new reports was recommended.

16. A programme of studies for 1970 and 1971 has been drawn up for carrying out these resolutions, since technical assistance absorbed the major part of the technical resources which the United Nations made available to Central America in this field. The programme includes investigations on tariff, structure, autonomous supply of electricity, development of urban and rural markets, financial practices and prices for electric power. The first reports, already commenced, deal with systems, procedures and depreciation rates of fixed assets, also with methods of distributing general expenses for the effects of the tariff structure. Special priority will also be given to regional planning for regulating the electricity industry on the basis of the assessment made in previous years to each of the countries concerned, and taking into account the institutional and legal aspects of the regulation institutions in the Central American Isthmus, which is as follows:

Panama dependent upon the Ministry of Economy in El Salvador; In 1966 a regulating institution was set up in Nicaragua; presently one is in the process of being created in Guatemala and, similar action may be taken in Honduras. A study on the situation of autonomous supply of electricity will be made. Another on tariff structure including suggestions concerning alternative methods for achieving regional coordination. The second half of the work programme will cover the evaluation of factors affecting the

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development of electricity markets, the elaboration of uniform regional methods for extending electricity services, and a comparative examination of financial investment practices in electricity development programmes. Finally, an analysis will be carried out on the price and cost levels of electricity in accordance with consumption and competition with other sources of power, as a guide to regional policy for price fixing and the utilization of resources in this field.

- 17. It is hoped that the second and third meetings of the Regional Group on Electricity Tariffs will be held in 1970 and 1971 for the purpose of examining work previously carried out, and to fix the following stages of research at regional level.
- 18. Regional experts of the United Nations' Technical Cooperation Office who have taken part in this project under the guidance of ECLA, Mexico, are the following:
- i) Regional Expert on Electrical Development. Mr. Francisco
 Malavassi held this position from 1st. December, 1961 to 31st. December,
 1966 and Mr. Edgar Jiménez from 1st. January, 1967 to 31st. December,
 1967. During the latter part of his work as Electrical Development Expert
 Mr. Malavassi gave technical advice on the question of tariffs and, together
 with the Regional Adviser on Electrical Integration and a consultant, took
 part in various reports which were presented to the INDE (National Institute
 for Electrical Development) in Guatemala. Mr. Jiménez carried out the
 work of assessment mentioned above and took charge of basic studies in connect
 tion with the tariff coordination programme. He has continued to do this
 work since January, 1968, as Regional Expert in Public Services.

- 11) Regional Expert on Electrical Engineering. This post was occupied by Mr. Ricardo Arosemena from 31st. October, 1963 to 31st. December, 1966. During 1965 and 1966 part of his work was to collaborate with the Regional Expert on Electrical Development in providing technical assistance to the Central American countries on tariff policies.
- iii) Regional Expert on Public Services. Mr. Edgar Jiménez has been assigned to this post since 1st. January, 1968. He is fully responsible for assessing governments on the matter of tariffs and also for all research on tariff coordination covered by the Central American programme and for any other action which may be necessary in achieving tariff coordination at regional level.
- iv) Regional Adviser in Infrastructure. Mr. Francisco Malavassi was in charge of this post from 1st. January, 1967 to 31st. March, 1968.

 Mr. Ricardo Arosemena occupies this position unofficially since 1st. April, 1968 and officially since 1st. January 1969. The work involved consists of general supervision of work and meetings dealing with matters connected with the programme of research on tariff coordination.

- d) Standardization of Electrical Equipment and Materials (Project 04-434)
- 19. The Regional Committe for Electrical Standards was created at the third meeting of the Central American Subcommittee for Electrification and water Resources. It is the technical body in charge of directing the regional program for the standardization of electrical equipment and materials which was initiated in December 1966 and which has, since May 1968, the financial support of seven national organizations connected with the electrical development of Central America and Panama.
- 20. Seven meetings have taken place in this program: five of the Regional Committee (one in 1966, two in 1968 and two in 1969) and two of the Working Group on codification of materials (both in 1969). During the first meeting of the Regional Committee the general program of activities was established and the internal regulations of the Committee were adopted. Also, the institutional system which was to be followed on a national level was formalized. The second meeting examined the progress accomplished in the carrying on of the agreements reached during the first one, approved the program of activities for 1968/1969 and defined the procedures which were to rule the relations between the Regional Committee and the ICAITI regarding the establishment of Central American electrical standards.

The Regional Committee, during its third meeting, approved standards on units and definitions of electrical terms for generation, transmission, distribution and utilization systems; symbols for electrical drawings and diagrams; and nomenclature for materials used in distribution systems.

In its fourth meeting, it agreed on a procedure for the elaboration and approval of regional standards, on a program of activities for 1969/1970 and on a codification system for equipment and materials; approved working standards for electrical distribution systems concerning permissible limits, variations and voltage drops, as well as transformers, insulation levels and types and sizes of electrical conductors.

During the fifth meeting, the Regional Committee agreed on a program of activities for 1970/1971, and approved working standards on mechanical and electrical criteria for the design and construction of distribution systems. It also expressed its agreement with the recommendations approved during the meetings of the Working Group referred to in the following paragraphs.

This Group was formed for the purpose of elaborating a uniform code for classifying the equipments and materials used by the electric power companies in Central America and Panama. As it was mentioned above, this Group met twice in 1969. During the first meeting several applicable systems were examined and the adoption of a six-digit system was recommended, according to certain classification of different groups and sub-groups of materials. A procedure for elaborating and up-dating the general catalog when required was also agreed upon. In its second meeting, the Group examined the lists of materials and equipment presented by seven power companies of Central America and Panama, and elaborated a uniform codification system for 6 000 articles which comprise twelve selected groups of equipment and materials, which is now being applied in each of them. It also established the required procedure for keeping the system up-to-date.

Besides, six more groups were selected to be classified uniformly during the next meeting.

- 21. The program of activities for 1970/1971 will be mainly concentrated in the preparation of design criteria, working standards and uniform specifications for the equipment and materials used in the power distribution, subtransmission and transmission systems, and in the elaboration of procedures and methods for joint purchases and for expediting the interchange of equipment and materials between the electrical power companies of the region. In order to examine the documents which should be prepared for this program, it has been estimated that it will be necessary to celebrate four meetings of the Regional Committee. In this manner, the general program of activities elaborated by the Regional Committee during its first meeting in 1966 will be completely accomplished.
- 22. The regional experts of the United Nations Office of Technical Cooperation which, under the supervision of the ECLA Mexico Office, have participated in this project, are the following:
- 1) Regional Consultant on Infrastructure. Mr. Francisco Malavassi held this post from 1st. January, 1967 to 31st. March, 1968. Mr. Ricardo Arosemena occupied this position unofficially since 1st. April, 1968 and officially since 1st. January, 1969. The organization and initiation of the program was done in 1967, and since 1968 he has been in charge of its general supervision.
 - ii) Regional Expert on Electrical Development. Mr. Francisco Malavassi occupied this position from 1st. December, 1961 to 31st. December, 1966.

 Mr. Edgar Jiménez was hired for it from 1st. January, to 31st. December 1967.

Mr. Ernesto Richa has held this post since 1st, November, 1967. Mr. Malavassi dedicated part of his time to the elaboration and supervision of the documents which were prepared on this subject in 1966. Mr. Jiménez devoted some of his time to the organization, financing and initiation aspects of this program. Mr. Richa has had, since the beginning of his contract, the responsibility of direct technical supervision of the works which are prepared by the Central American Expert that will be mentioned later, and of the relations with the electrical power companies that finance the program.

- 23. Due to its very detailed nature, this project has required the participation of other experts that have been supplied by the national organizations connected to the electrical development in the Central American Isthmus and by the governments of some other countries.
- i) Central American Expert in Electrical Standards. Mr. Rafael
 Carrillo was hired since 1st. May, 1968, by seven electric power companies
 of Central America and Panama, as part of the ECLA Office in Mexico, to take
 charge of the preparation of all the basic material required for the discussions and agreements on a regional level.
- ii) Government Technicians. The CFE (Federal Electricity Commission) of Mexico donated, during eighteen consecutive months, the technical services of Mr. José Antonio Dávila, who collaborated in the elaboration of the proposed standards.

- e) Central American Subcommittee on Electrification and Water Resources (Project 04-435)
- 24. The Secretariat of the Central American Economic Cooperation Committee will confer with the Central American governments on the possibility of holding a meeting of the Central American Subcommittee on Electrification and Water Resources in 1970 and another in 1972. The purpose of the these meetings will be to revise the studies already completed with a view to programming the activities of the Subcommittee and its Secretariat.

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B. NATURAL RESCURCES IN CENTRAL AMERICA (Project 04-44)
The following is a resumé of the activities carried out by the United
Nations experts on natural resources assigned to the Central American
Program for Economic Integration. The work of these experts, who constitute
the Central American Electrification and Water Resources Mission, is in
accordance with the program established by the ECLA Mexico Office.

- a) Water Resources (Project 04-441)
- 1. The Central American programme for evaluating water resources was initiated by mid 1966 in the third meeting of the Central American Subcommittee on Electrification and Water Resources. In September, 1966 the text of the United Nations' Special Fund request for the Central American Hydrometeorology Project was approved as well as the initiation of the first stage of a general evaluation of water resources.

- 2. The approval and setting up of the Central American Hydrometeorology
 Project led to the creation, in each of the countries concerned, of national
 committees in charge of the installation, maintenance and surveillance of
 hydrometeorological and hydrological stations, and to a Regional Committee
 responsible for coordinating the general work of the project. The ECLA
 Secretariat convened the first meeting of the Regional Committee on Water
 Resources in December, 1966 and it has since held three further meetings
 but under the control of its own authorities concerned.
- 3. In 1967 the first stage of large-scale activities on national and international water resources of the Central American Isthmus was organized and got under way. As a result of this several projects are now being carried out in each of the six countries, and for the region as a whole, on the following aspects:
- a) Description and analysis of the existing meteorological and hydrological conditions; estimate of water availability and variability in the form of precipitation and surface run-off from large watersheds, and the present stage of advancement of the programmes for the collection and processing of basic data.

- b) Description and analysis of geohydrological conditions; estimate of the availability of underground water from large watersheds, and present tage of advancement of investigation on underground water deposits.
- for municipal water supply and sewage disposal including water needs for large watersheds in 1970 and 1980.
 - d) Irrigation possibilities in accordance with agricultural needs and land and water availability; present stage and projection of irrigation programmes and estimate of water requirements for orrigation purposes in 6/1970, 1980 and 1990.
 - e) Estimate of the superficial hydroelectric potential; characteristics of production and costs of hydroelectric plants already in existence and those planned up to 1990 and water needs for hydroelectrification in 1970, 1980 and 1990.
 - f) Description of the present stage and navigation possibilities of the main rivers in the area; estimate of the minimum water requirements for $\frac{8}{}$ navigation purposes.
 - g) Estimate of investments, costs, financing and economic results in connection with the programmes for water utilization.
 - h) Analysis of the present legislation and their effect on water usage, in general, and for specific uses. Description and general analysis of the administrative and governmental structure regulating water supply.

 During the first quarter of 1970 the relations between supply and demand of water resources will be estimated, taking into account alternative or complementary uses of water.

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- 4. On the basis of the above-mentioned work, a summary report on each of the countries concerned and another covering the entire region have now been undertaken. These are due for completion in the first quarter of 1970 and will contain the following information concerning water resources: importance for national development; availability of surface and underground water from large watersheds; present stage and projections of main uses; economic, financial, legal and institutional problems influencing development; recommendations on the selection of watersheds with the best development possibilities and on the basic policies for overall water development. These six documents will be distributed and discussed in each country, after which the regional report will be submitted for the consideration of the Regional Group on Water Resources during the second quarter of 1970. The first stage in the evaluation of water resources in the Central American Isthmus will thus be concluded.
- 5. During 1969 special promotion was given to a United Nations' Special Fund project for the evaluation of mineral, water and energy resources. The six Central American countries have endorsed and approved this project and the Central American Bank for Economic Integration is also participating. The part of the project dealing with water resources would cover the technical assistance necessary for developing the second stage of the programme of evaluation of these resources. This stage would commence with the drawing up of programmes for water utilization intended to promote an optimum development of water resources; of more detailed national and subregional reports on watersheds in the area with a high priority, and an analysis of tariffs and costs for the purpose of establishing uniform methods of

evaluating competitive uses of water. It is of fundamental importance in this second stage to define specific preinvestment projects on the main uses of water with the idea of achieving an integrated development of these resources.

- 6. Assessment was given to the SNAA (National Autonomous Aqueduct and Sewerage Service) of Honduras on administration and accounting for the formulation of a new catalogue on general accounting and also concerning terms of reference for the engaging of administrative consultants in accordance with recommendations of the BID. Other recommendations were made on administration of warehouses, handling of goods in transit, budget and works control, internal control, presentation of statistics and financial and cost reports, and these are now being followed. Further technical assistance will be given at national and regional levels on ways of uniforming the basic methods of accounting, formulation of tariffs and elaboration of statistics of companies engaged in providing irrigation and supplying potable water, and also in the developing and coordination of the activities of various organisms specializing in the exploitation and control of water resources.
- 7. The following regional experts of the United Nations! Technical Assistance Office have taken part in this project under the direction of ECLA, Mexico:
- i) Regional Expert on Electrical Development. Mr. Francisco Malavassi held this position from 1st. December, 1961 to 31st. December, 1966.

 During 1966, he was responsible for providing basic guidance for the preparatory tasks and for the promotion of matters to do with water resources in connection with the programme of activities of the Central American Subcommittee on Electrification and Water Resources.

- held this position form 31st. October, 1963 to 31st. December, 1966.

 During 1966 he collaborated with the Regional Expert on Electrical Development in the preparation of documents which served as a basis for agreements on the matter of water resources adopted by the above-mentioned Subcommittee, or in promoting and organizing the Special Fund Central American Hydrometeorology Project.
- iii) Regional Adviser on Infrastructure. Mr. Francisco Malavassi held his post from lst. January, 1967 to 31st. March, 1968. Mr. Ricardo Arosemena occupied this position unofficially since lst. April, 1968 and officially since lst. January, 1969. The expert concerned is responsible for coordinating the activities of the other experts who have taken part in this project and for supervising their work and reports. He also attends meetings of the Regional Committee on Water Resources, at which the progress of the Central American Hydrometeorology Project is examined.
- iv) Regional Expert on Hydroelectricity. Mr. Ricardo Arosemena held this post from 1st. January, 1967 to 31st. December, 1968. He was responsible for carrying out the study on hydroelectricity and the preparation of the global work programme for the first stage in the evaluation of water resources. From 1st. April to 31st. December, 1968, he was in charge of the functions previously being carried out in this field by the Regional Adviser on Infrastructure.
- v) Regional Expert on Public Services. Mr. Edgar Jiménez took over this post from 1st. January, 1968. Part of his work has been to give technical assistance to national organisms specializing in the exploitation

and control of water resources, particularly concerning the economic and financial aspects and general evaluation of these resources.

- this post on 13th September, 1969, first to prepare a report on the multiple use of water, which will form part of a general evaluation of water resources, and later to take part in more detailed reports which will be called for by the second stage of this project.
- 8. This project, in view of its size and specialization, has called for the participation of other experts and officials based at ECLA, Santiago, of various specialists assigned to ECLA Mexico, and of technical experts provided by the governments of other countries.
- i) <u>United Nations' Expert assigned to ECIA, Santiago</u>. During 1968 and 1969 the following experts were incorporated into the programme of evaluation of water resources: Mr. Alberto Martinez for the report on meteorology and hydrology; Mr. Jorge Guzmán for the report on water supply, drainage and sewage disposal; Mr. Mario Valls for the report on legal and institutional aspects and Mr. Jeff E. Flanagan for the report on multiple uses and general aspects of irrigation.
- ii) United Nations' Specialists assigned to ECIA, Mexico. During 1968 and 1969 the following experts collaborated in this project on specific reports: Mr. Napoleón Morúa, Transport Economist of the United Nations' Technical Assistance Office, on a navigation study; Mr. Alejandro Quesada, Agricultural Economist of the Latin American Institute for Economic and Social Planning, on the study concerning general aspects of irrigation; and

Mr. Roberto Jovel, Expert on Underground Water Deposits, engaged by the Technical Assistance Office during several months of 1969 for the study on underground water deposits and general aspects of water availability.

iii) Government Experts. The Mexican Water Resources Secretariat provided the professional services of Mr. Luis Zierold Reyes for the period of one year for the basic irrigation study.

b) Regional Evaluation of Energy Resources (Project 04-442)

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At the request of the Central American Subcommittee on Electrification, statistics have been published and a general survey made on the energy sector, with a view to studying the problems and perspectives of this and sector in the regional process of economic integration. In order to further the evaluation of energy resources, we are collaborating with the BCIE (Central American Bank for Economic Integration) in the promotion of the United Nations Special Fund Project. This survey deals with the evaluation of natural resources (mineral, energy and water) and is referred to in the chapter on water resources. 13/ 10. The Central American Program for the evaluation of energy resources required, in addition to the Special Fund Project, already mentioned, the collaboration of UNIDO to make possible an analysis of the general behavior of the energy sector in the Central American Isthmus, which will eventually cover Mexico and the Caribbean. This first stage of the evaluation comprises a survey on the production and utilization of petroleum products, hydroelectricity and vegetable fuels. The initial step will be to up-date the statistical annual series --both at national and regional levels -- on the production, consumption and marketing of energy used in the various. geographical zones. This will be followed by a general survey of the existing possibilities of energy development on a national and regional basis. To this effect, studies have been programmed as follows: projection of future energy requirements; evaluation of the potential from various sources; displacement possibilities between alternative types of energy,

and an analysis of some of the related institutional and financial aspects.

- 11. This regional program could comprise other natural resources in its second phase and thus attain an integrated development approach on the joint utilization of the resources in the Central American Isthmus. In this respect, the program would be directed toward the systematic evaluation of the progress made, the short and medium-term perspectives in the utilization of the most important natural resources in the region, and the establishment of national and regional policies.
- 12. The regional experts of the United Nations Office of Technical Cooperation which, under the supervision of the ECLA Mexico Office, have participated in this project are the following:
- 1) Regional Adviser on Infrastructure. Mr. Francisco Malavassi held this post from 1 January 1967 to 31 March 1968. Mr. Ricardo Arosemena has occupied this position unofficially since April 1, 1968 and officially since 1 January 1969. In both cases, their work has consisted of rendering advise on the problems posed by the Central American governments and the regional organizations for economic integration, in addition to promoting the Special Fund Project for the evaluation of natural resources. In the future, he will also actively participate in the implementation and progress of the Central American program for the evaluation of energy, mineral and water resources.
 - ii) Regional Expert on Electric Development. Mr. Francisco Malavassi held this post from 1 December 1961 to 31 December 1966. Part of his time was dedicated to the preparation and supervision of related documents published during the years 1965 and 1966.
 - iii) Regional Expert on Flectric Power. Mr. Ricardo Arosemena occupied this post from 31 October 1963 to 31 December 1966. During the years

1965 and 1966 he collaborated with the regional Expert on electric development in the preparation of the above mentioned documents dealing with energy.

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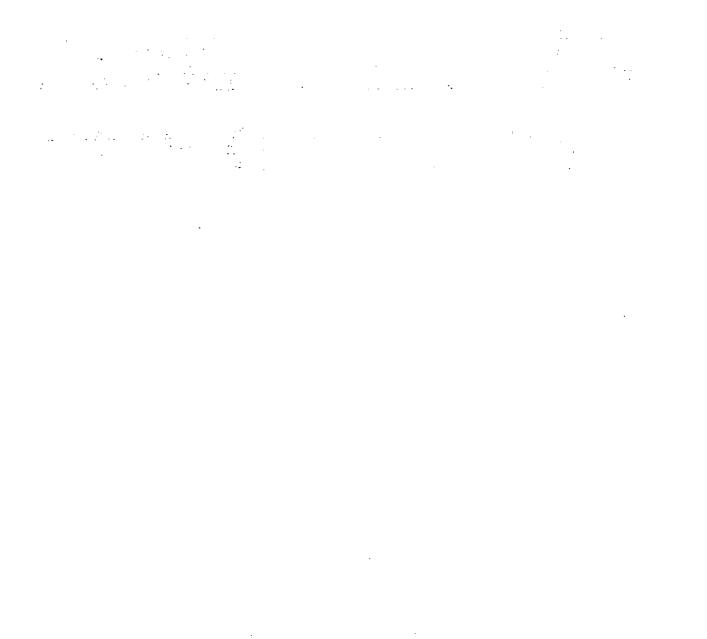
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- 2/ Informe de la primera reunión del Comité Regional de Recursos Hidráulicos (E/CN.12/CCE/SC.5/56).
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- 11/ Aspectos administrativos y contables del Servicio Autónomo Nacional de Acueductos y Alcantarillados de Honduras (CEPAL/MEX/69/16; TAO/LAT/100).

Regional Evaluation of Energy Resources

12/ Política regional de energía en Centroamérica (E/CN.12/CCE/SC.5/41; TAO/LAT 63); Estadísticas preliminares de energía en Centroamérica y Panamá. 1950/1963 (without reference number); Estadística de consumo bruto de energía de Centroamérica y Panamá. 1950/1964 (E/CN.12/CCE/SC.5/39; TAO/LAT/61).

13/ Solicitud al Fondo Especial de las Naciones Unidas para la elaboración de un estudio de los recursos hidráulicos, minerales y energéticos en Centroamérica y Panamá (BCIE's reference number, March 1969).



C. TRANSPORTATION IN CENTRAL AMERICA (Project 04-41)

The following is a summary of the activities carried out by the United

Nations Experts in the field of transportation, assigned to the Central

American Program for Economic Integration, in accordance with the

program of work established by the ECIA Mexico Office.

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- a) Transport Development policy in the Central American Common Market (04-411)
- 1. This project covers four principal types of activity of a periodic nature, i.e.,: a) attending to requests for technical assistance made by the Central American Governments and regional organizations for economic integration in improving transport policy and in the evaluation of specific public investment projects; b) drawing up of documents of a specialized nature and periodic reports on the situation and development of transport; c) instruction in the intensive courses held in Central America on economic development and project evaluation run by the Latin American Institute for Economic and Social Planning with the assistance of the United Nations Technical Assistance Office and the ECLA Mexico office and d) taking part in interagency coordination meetings of SIECA/BCIE/ECLA on aspects relating to regional infrastructure.
- 2. As far as technical assistance is concerned the chief activities which have been taken into account by the governments may be summed up as follows: a) assessment to the Highway Department of the Ministry of Public Works and Communications in Guatemala in 1967 on the preparation of a road inventory; b) technical assistance to the Department of Highways of the Ministry of Public Works of El Salvador in 1967 on the preparation of a programme on transit inventory; in 1967 and 1968 on

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the planification, methodology and evaluations of the La Cuchilla and Northern Longitude highway projects; and in 1969 on the programming and analysis of a national study on the place of origin and destination of people and goods being transported by road; c) assessment in 1967 to the Highway Department of the Ministry of Communications and Public " Works of Honduras for the elaboration of a programme on highway inventories, and also on the preparation of a plan on transport analysis and programming for a public investment plan of action during the period 1968-71; assessment in 1967 to the Highway Department of the Ministry of Public Works of Nicaragua on the formulation of a program on highway inventories and in 1969 on the methodology required for the evaluation of a peripheral road around Managua; e) assessment to the Road Transport Department of the Ministry of Transport of Costa Rica and in 1968 and 1969 on the methodology to be followed in making a study of transport in the metropolitan area of San José; f) assessment to the Department of Highways, Airports and Wharves of the Ministry of Public Works of Panama in 1969 on methodology and preparation of instructions for the evaluation of 22 highway projects in Panama and also on technical aspects for carrying out improvements at the international airport of Tocumen; g) collaboration in 1969 with the Permanent Secretariat for Central American Economic Integration (SIECA) in determining the effects on automotive transport services of the critical situation confronted by the Common Market in that year. Preparation of a memorandum for the Central American Integration Bank on the possibilities of operating a trans-shipment service between Cutuco and Cosigüina.

3. The following is a list of documents and reports pertaining to the most important work carried out: a) in 1968 a document was completed for the use of Highway Departments and as a text for the intensive courses of ILPES and OTC in Central America. It covers the application of the chief internationally recognized methods for project evaluation with particular respect to a large number of Central American highways. This is an attempt to reach agreements among the countries concerned and to achieve an adequate application of such methods to the conditions peculiar to the area; b) at the request of the Central American Transport Subcommittee a document was elaborated in 1967 dealing with the various methods applicable to carrying out road inventories and other similar works of investigation. 2/ This document was studied by the Working Group on Transport Statistics 2 at its first meeting and, later, put to great use by the Highway Department in the design and setting-up of national programs on road inventories referred to previously under the heading of technical assistance: c) two documents were published in 1968 and 1969, respectively, in connection with the carrying out of resolutions approved by the Central American Transport Subcommittee, one dealing with the formulation of technical recommendations for low-cost road conservation 4 and the other containing solutions to problems connected with the application of methods of highway construction and design. 5/ In view of the interest shown the first of these publications has been widely circulated to road offices, municipalities and other public dependencies connected with low-cost road maintenance and reconstruction. Other works of investigation had also been completed

previously and in 1961 a study was carried out on the design and construction of pavements, the recommendations of which were approved and adopted in 1963 by the above-mentioned Subcommittee6/. Also in 1961 a regional highway programme was drawn up 1 in collaboration with the Central American bodies for economic integration, and the subsequent report was made use of at the second meeting of the Subcommittee and the first meeting of the Central American Ministers of Economy and Public Works in 1963. At the latter meeting a list was made of the highways which would be covered by the Central American Road Plan. One may finally mention that in 1964 a study requested by the Committee for Economic Cooperation on the situation of various methods of transport at present prevailing was completed in 19648 and submitted for the consideration of the ninth meeting of this Committee; d) in 1969 a preliminary study was carried out on the possibilities of river transport in Central America and Panama, which will be incorporated into the study on water resources which is being prepared with the assistance of other experts by the United Nations Central American Mission of Electrification and Water Resources; e) since 1967 information is being prepared annually on the progress of the transport sector in each of the Central American countries. This information is later used in carrying out more detailed studies.

4. Collaboration with the Latin American Institute for Economic and Social Planning, the United Nations Technical Assistance Office and official bodies of Nicaragua and Panama in the fourth and sixth intensive courses held in Central America on Economic Development and Project

Evaluation in 1966 and 1969, by providing professors on the subject of methodological aspects on the preparation and evaluation of road projects.

- 5. Participation in four interagency meetings (SIECA/BCTE/ECLA) on the coordination of aspects of regional infrastructure held in 1968 and 1969. At the same time comments and suggestions were provided on several SIECA and BCIE documents on the maintenance of the regional highway network, general strategy design for the transport sector and regional outlines for the physical integration of Central America.
- 6. Over the period 1970/72 further assessment will be given to the Central American Governments and regional integration organizations on the formulation and perfectioning of transport development policy and in the evaluation of specific projects of regional interest. Technical assistance will be provided on possible means of achieving the unification of basic methods of accountancy, the formulation of tariffs and the elaboration of statistics of national transport and communication organizations. On the other hand, it is thought that there may be a possibility of celebrating a meeting of the Central American Transport Subcommittee at the beginning of 1972 for the purpose of examining the studies which have been carried out and formulating a new programme of transport activities. (Project 04-416).
- 7. The following regional experts of the United Nations Technical Assistance Office have taken part in this project under the guidance of ECLA, Mexico office:
- i) Regional Expert on Transport Economy. Mr. Enrique Cuéllar was engaged from April to November, 1961, for the purpose of advising the

Central American authorities in the matter of economic integration and of preparing a document on the regional highway programme. Mr. Julián Rey Alvarez held this post from January to December, 1964, for the task of bringing up-to-date the integrated transport study completed by a United Nations mission in the mid-1950's. Mr. Napoleón Morúa has held this position since 8 June 1966, and his work has consisted in giving direct technical assistance and in the preparation of reports of a regional nature on transport economy and planning.

- ii) Regional Highway Expert. Mr. Max Sittenfeld was engaged during the months of March and April 1961 to prepare a report on specifications for flexible road paving. Mr. Edwin Clark held this position from 9 October 1965 to 8 October 1966, for the purpose of compiling a manual on low-cost maintenance and reconstruction of various types of roads.
- iff) Regional Adviser on Infrastructure. Mr. Francisco Malavassi held this position from 1 January 1967 to 31 March 1968. During this period he supervised the work carried out by the United Nations experts on land transport.
- iv) Regional Expert on Public Services. Mr. Edgar Jiménez has been in charge of public services since 1 January 1968. Up to 1970 he was engaged in giving advice to electricity, port and water authorities and now he will also be advising authorities on road transport and communications.

- b) Studies for Services and Costs of Transportation in Central America (Project 04-412)
- 8. A study on the situation of transportation costs in Central America will be published in 1970, a preliminary version of which was completed at the end of 1969. It is a by-country estimate of 24 different types of goods, divided into three groups, according to origin and destination. For the first group, unit costs were obtained for each country on a ton-kms., passenger-kms., vehicle-kms. basis and then total transportation costs of all traffic occurring on the principal highways. For the second group, an estimate was made of the costs per ton-kms. and the cost of merchandise imported from and exported to the rest of the world. For the third group, the ton-kms. were calculated together with the transportation costs of merchandise destined for Central American commerce. This study will serve as a basis for the study which is now under preparation on transportation alternatives in the Central American Common Market.
- 9. The following is the Reegional Expert of the United Nations Office of Technical Cooperation who, under the supervision of the ECLA Mexico Office, has participated in this project:
- i) Regional Expert on Economics of Transportation. Mr. Napoleón Morúa has been occupying this post since 8 June 1966 and was in charge of the preparation of this study.

c) Alternative Methods of Transport in the Central American Common Market (Project 04-413)

- 10. This project consists of two studies: One that was initiated at the end of 1969 for the purpose of establishing the most efficient means of distributing merchandise, taking into account available methods of transportation and alternative routes. The second study is complementary to the above and will be started in 1971. It will deal with highway construction costs to be employed as the basis for budget control and the formulation of new highway projects. The study terminated in 1969, of the future needs of highways and motor vehicles, will also be brought up-to-date and enlarged in scope.
- 11. It was decided to undertake this project in view of the interest of the Permanent Secretariat of the Central American Common Market and of the Central American Integration Bank in determining new standards of judgement for formulating an integrated regional transport policy, and in assessing the transport schemes which should be given financing priority in regional transport investment. Negotiations are being carried out with the above-mentioned entities for the purpose of securing further financial and technical aid in order that this study may be completed at an early date and in the most efficient manner possible.
- 12. Apart from the advisory services provided to the Permanent Secretariat in mid-1969 for the purpose of easing the difficulties experienced in the regional transportation of goods caused by the Honduras-El Salvador crisis, other preparatory studies have been carried out including the following: a) An estimate of passenger-kilometer, ton-kilometer, and capacity of the main highways of the Central American regional road network; 10/

- b) a bringing up-to-date of several studies for internal use, prepared in 1964, on motor vehicle services and costs in Central America. (These include an analysis of the supply and demand of motor vehicle services, costs, tariffs, conditions, regional agreements, deficiencies and proposals to improve said services); c) research on production and processing costs, as well as the sales value per ton, of a given group of goods of similar type, and d) an estimate of land transport costs in Central America for 24 different types of goods concluded at the end of 1969.
- 13. The study on transport alternatives in the Central American Isthmus has been started with an analysis of past trends in the volume and value of the most significant items of Central American commerce. Information is at present being collected on production costs, and a methodology being prepared which will be utilized in anticipating production, consumption and trade trends. An inventory will shortly be initiated on methods of transport in order to determine the present capacity of highways, railroads, docks, airports, navigable rivers and customs facilities. A similar inventory will be undertaken in relation to rolling stock, including automobiles, railroads, ships and airplanes. The remainder of the research will be carried out during 1970 for the purpose of starting the second study of this project on highway construction costs in 1972.
- 14. The following regional experts of the United Nations Office of Technical Cooperation have taken part in this project under the direction of the ECLA, Mexico office:

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1) Regional

- 1) Regional Expert on Transport Economy. Mr. Napoleón Morda has held this post since 8 June 1966. He is fully responsible for this project, as well as the supervision and coordination of the work of short-term experts provided by the Central American agencies. He also revised the study carried out by the regional expert on traffic engineering.
- ii) Regional expert on wraffic Engineering. Mr. Luis Carlos Chó was engaged from 4 May to 3 August 1969, to make an estimate of the supply and demand for regional highways in the Central American countries and Panama.

- d) Standards for the Design and Construction of Highways in Central America (Project 04-414)
- 15. This project will be initiated in 1972 and will have a duration of approximately two years. It will be carried out in collaboration with the CABEI the SIECA and the governments of Mexico, Central America and Panama. It consists of a survey which will determine, under regional conditions, the most appropriate standards of highway design and alignment with respect to topography and soils as well as climate, materials, costs and other aspects.
- 16. The ECLA Office will be responsible for the supervision of this project, while the Central American Bank has agreed to give the necessary financial support for the cost involved. In view, however, of the priority given to the survey on transportation alternatives within the Central American Common Market (Project 04-413) and the limited technical facilities of the ECLA Mexico Office in the field of transportation, it has been necessary to postpone the initiation of this project until 1972.
- 17. The following is the regional expert of the United Nations Office of Technical Cooperation who, under the supervision of the ECLA Mexico Office, will participate in this project:
- i) Regional Expert on Economics of Transportation. Mr. Napoleón Morua has held this post since June 8, 1966. He will be responsible for this project and for supervising and coordinating the activities carried out by the experts under contract with the Central American Bank for Economic Integration(CABEI), and the technicians assigned by the governments of the countries participating in this project.

- e) Maritime Transport and Port Development (Project 04-415)
- 18. The Central American Governments and organisms of economic integration have expressed in different occasions, the need of a regional policy on maritime transportation and port development in the Central American Common Market. With this purpose in mind, they decided that the United Nations technical assistance offered to them in 1966, be directed first towards the study of the port status in each one of the countries, the identification of the principal problems that offer difficulty to a policy of a regional nature, the establishment of the required institutional organization and the increasing of port operations productivity; and secondly, to study the design and implantation of an integral policy on this subject in Central America. The works accomplished since the middle of 1966 to the beginning of 1970 have covered a good part of the activities planned for the first stage. In the next few years the rest will be completed, but it will be necessary at the same time to evaluate the experience acquired to take this as a basis to start building up the structure of a regional shipping and ports policy.
- 19. One of the activities which has taken more time is that related to the direct technical assistance given to the Governments and port enterprises with the purpose of increasing the productivity level of the seaports. In the majority of the cases it has been necessary to provide this assistance at the piers themselves or at the central offices, so as to insure the immediate application of the recommendations made. Due to the great variety and number of these recommendations, it is not necessary to make a detailed listing of them, but their result can be observed in the increasing

of the productivity of the ports of Santo Tomás de Castilla and Champerico, in Guatemala, Acajutla and La Libertad, in El Salvador, Puerto Cortés in Honduras, Corinto and Puerto Cabezas in Nicaragua, Limón and Puntarenas in Costa Rica. Similar technical assistance has been provided to the ports of Barrios and San Jose, in Guatemala. In other cases it has proven convenient to make the suggestions by means of reports, regulations and others, so that they can be used as a basis and reference to the port authorities and technical personnel for the corresponding policy decisions. For example, several ports adopted in 1968 the recommendation of using habor pilots and towboats during the operations of arrival and leaving of the ships. 11 During that same year, criteria were given about the technical and financial possibilities with which a provisional pier could operate in Puerto Limón, Costa Rica. 12/ In 1969, due to the transferring of the port installations of the Northern Railway Co., in Puerto Limón, to the Administration of Port and Economic Development of the Atlantic watershed (JAPDEVA) of Costa Rica, an analysis was made of the organization and operation of the national and provisory piers, in order to determine the administrative and legal adjustments required for the efficient managing of the port installations. Among the suggested measures, the most important are those pertaining to the adoption of a new organization scheme for JAPDEVA, the transferring of the warehouse that the fiscal customs office operates, and the establishment of new regulations on reception and dispatch, as well as the improving of the systems of administrative information. 13/ Near the end of 1969, JAPDEVA started to put into use the most important recommendations.

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Also, in 1969, due to the transferring of the public services of railway transportation, dockage and other operations in Puerto Barrios to the Railway Company of Guatemala, an examination was made of basic works, equipments and labor, operational and administrative aspects of this seaport. Based on this analysis, the need to modernize the equipments was obvious in order to improve several physical and operational aspects and to perfectionate the techniques of personnel and administration. Since the location of the Barrios terminal is very close to that of the national port of Santo Tomás de Castilla, the convenience was pointed out to operate both installations as a port complex. 14/ Regarding this last proposal, and the interest that exists of improving the port services, the Ministry of Economics of Guatemala requested in December 1969 that, previous to a study which has been entrusted to SIECA, a preliminary report was finished in February 1970 and has already been delivered to the Minister of Economy for its study and consideration. The document contains, besides a group of suggestions, an indication about the characteristics of both ports and the steps to be taken in order to accomplish its operation as a complex, as well as other measures of an institutional character. 15/ During 1968 and 1969 other studies were also elaborated about loads movilization 16, jurisdictional aspects 17, and possibilities of maritime transportation between Central American ports 18/

It is also important to mention the assistance given to the countries in defining the functions of Customs and ports inside the terminals, in order to lower operational costs. These projects have been successfully

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accomplished in El Salvador, Honduras and Nicaragua. In Guatemala and Costa Rica they are now considering the executive agreements for this purpose.

20. In regards to the institutional organization on a national level, the technical assistance has also been very wide. It has extended from the preparation of a basic document 19/ to the consulting work on the preparation of the legal instruments for the establishment of port authorities on a national level.

At present, the status is the following: The Honduras Port Authority has been created; the elaboration of the law projects for the creation of similar authorities in Guatemala, Nicaragua and Costa Rica has been completed; it has been considered feasible in El Salvador to transform the Autonomous Port Executive Commission into the national port authority. In the same manner, collaboration is being given to formulate a legal platform to transfer the concession of Cutuco to said Commission, so that all Salvadorean ports would be under the direction of one organism.

21. In order to direct and coordinate the United Nations technical assistance, the governments decided to create an specialized regional group subordinated to the Central American Transportation Subcommittee. The Working Group on Maritime Transport and Port Development has met once in 1967 and once in 1968.

22. During the first meeting of the Working Group a document was presented in which the principal problems of the most important Central American ports, that could handicap the development of the coordinating works on a regional level, were outlined. 21 This document served as a basis to establish a program of activities for the following years.

/a) Cooperation

23. Several documents have been elaborated which have informed about the status of the principal ports of each country, so as to keep the different port authorities informed on recent developments in the other seaports, as well as the stages of executive action on the investment programs, enlargements and acquisition of equipment. 22/ Also, these documents allow to make comparison so as to take advantage of experience of others. 24. In the second meeting of the Working Group several topics were analized regarding institutional matters and port documentation. Referring to the first theme, several documents were presented pertaining to the creation of the public and private organizations which would constitute the institutional center for the technical direction of matters related to maritime transport and port development. These organizations would be: a) the Central American Commission of Port Authorities, $\frac{25}{}$ that as the consulting organism to the Central American Economic Council, would be in charge of coordinating on a regional level the national activities in matters of construction, enlargement, maintenance, operation, direction and administration of the sea, river and lake ports of Central merica; b) the Association of Maritime Transport Users of the Central American Isthmus $\frac{24}{}$ and c) the Central American Association of Shipowners $\frac{25}{}$. Based on these documents and on the resolutions approved by the Working . Group, the Central American Economic Council created the first of them in May 1969; the Chambers of Commerce Federation of the Central American Isthmus established the second one also in May 1969, and the Central American shipping companies founded the third of them in February 1970. 25. During 1969, the following collaboration was given to the regional organisms of economic integration:

- a) Cooperation was given to the governments regarding the activities tending to the creation of the Commission of Port Authorities; assistance was given to its members and participation was taken in the meeting of the Coordinating Group for its installation. Also, assistance was given to SIECA in the development of its functions as secretariat of this Commission. Several investigations were made in relation to the problems that are caused by the raising of shipping freights and tariff increases applied to certain ports in the region. Also, active part was taken in the preparation of a document $\frac{26}{}$ and assistance was given to the governments during the special meeting on Ocean Transport called for this purpose by SIECA, 27/ in which the joint position of the Central American countries was defined. Also, collaboration was given to the Central American governments delegation that participated in the fifth meeting of the Latin American Regional Association of Pacific Ports (ARELAP), which took place in Peru, and that set the basis of coordination to define a joint policy regarding the increase in ocean shipping freights.
- b) Support was given to the Central American Institute of Public Administration (ICAP) in 1969, through technical courses in customs and port administration in the following terminals: Santo Tomas de Castilla in Guatemala, Cortes in Honduras, Corinto in Nicaragua and Limon in Costa Rica. Besides, a document was completed which was recently distributed among the countries of the area on integral training of port personnel. 28/
- c) Participation was taken in the first meeting of the Association of Maritime Transport Users that took place in February, 1970 and to this

effect a work was used which was prepared the year before, about the way to organize it internally. 29/ Active part was also taken in the constitutive meeting of the Association of ship owners.

- d) During 1969 assistance was given to the port authorities of Guatemala, Honduras and Nicaragua, concerning accounting, costs and tariff aspects. Also, technical assistance has been given to them, as in Costa Rica, regarding the application of the accounting code which was proved during the second meeting of the Working Group. 30/
- 26. With the purpose of simplifying and facilitating the arrival, permanence and leaving of the ships, a uniform documentation system was proposed in 1968.31/ Upon request of the Working Group, the revision of this system has been started, according to the national and regional legal regulations that concern it, specially Customs and fiscal regulations. To this respect, it is relevant to indicate that the port and maritime codes prepared at the end of the 50's decade are being revised for actualization. 32/ 27. During the following years, technical assistance on regional aspects will continue to be given to the port organisms related with the Central American Economic Integration, as well as to SIECA, CABEI and ICAP, regarding projects and studies on this matter, particularly in reference to the design of a regional shipping policy; economic, technical and financial feasibility of investment projects and port and customs personnel training. Besides, it will be necessary to continue collaborating with the governments, shipping and port enterprises, with special attention to completing and giving force to the institutional frame of port authorities of national, range; in improving the productivity of the

terminals and port operations, and in increasing the international ton load moved by the shipping enterprises of the zone.

- 28. The experts of the United Nations Technical Cooperation Office that, under the supervision of the ECLA Office in Mexico have participated in this project are the following:
- Andrade was hired for this post since 1 June, 1966. From that date until 31 March 1968, he had the technical responsibility of the project. He has had full responsibility since 1 April 1968.
- ii) Regional Consultant on Infrastructure. Mr. Francisco Malavassi held this post from 1 January 1967 to 31 March 1968. During this period, one of his duties was to supervise the works of the regional expert mentioned above.
- iii)Other Experts. Towards the end of the 50's decade, Mr. Cervantes
 Ahumada and Le Bourgeois elaborated the Port and Maritime Codes projects,
 that are now being revised by Mr. Ricardo de Olagüe, expert of the IMCO,
 who has his headquarters at the Secretariat of the Central American Common
 Market. Mr. Georges Theodoru was designated navigational expert from
 7 November 1963 to 30 November 1964, during which time he prepared two
 groups of recommendations. One referring to the ports management and the
 other about the creation of deep-sea cabotage service in Central America.
 Both works have served as orientation to the actions newly initiated in
 1966.
- iv) Regional Expert on Public Services. Mr. Edgar Jiménez has held this post since January 1, 1968. He has collaborated in this project with the

preparation of the document about accounting and statistics code, by participating in the formulation of the documents presented to the first meeting of the Working Group and by attending the two meetings of this Group. He also prepared the document about the economic feasibility of a provisional port in Costa Rica.

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f) Meeting of the Central American Transportation Subcommittee (Project 04-416)

29. The Secretariat of the Economic Cooperation Committee of the Central American Isthmus, will consult the governments about the possibility to call a meeting of the Central American Transportation Subcommittee by the beginning of 1972, with the purpose of examining the studies made and formulating a program of activities of the Subcommittee and its Secretariat in matters of transportation.

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Transport Development Policy in the Central American Common Market

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- 2/ Inventarios y estudios dinámicos de caminos y carreteras en Centroamérica y Panama (E/CN.12/CCE/SC.2/102; TAO/LAT/74)
- 3/ Informe de la primera reunión del Grupo de Trabajo sobre Estadísticas de Transportes (E/CN.12/CCE/SC.2/103); Coordinación de las estadísticas de transporte en el Istno Centroamericano (E/CN.12/CCE/SC.2/101)
- Mantenimiento y reconstrucción de caminos (E/CN.12/CCE/SC.3/23; TAO/LAT/96)
- 5/ Apuntes sobre problemas de carreteras en Centroamerica y México (E/CN.12/CCE/SC.3/26)
- 6/ Metodos y criterios actuales de diseño y construcción de pavimentos flexibles en Centroamérica (E/CN.12/CCE/SC.3/6; TAO/LAT/37); Informe de la segunda reunion del Subcomité Centroamericano de Transportes (E/CN.12/CCE/SC.3/17)
- 7/ Red vial centroamericana (E/CN.12/CCE/250; TAO/LAT/38)
- 8/ Carreteras, puertos y ferrocarriles en Centroamerica (E/CN.12/CCE/SC.3/20; TAO/LAT/48)

Studies for Services and Costs of Transportation in Central America

9/ Estimación de los costos del transporte en Centroamérica (sigla por asignar) (It is presently under editorial revision).

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Alternative Methods of Transport in the Central American Common Market

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Maritime Transport and Port Development

- 11/ Proyecto de reglamento de servicios de practicaje y uso de remolcadores en las terminales portuarias centroamericanas (CEPAL/MEX/68/8.
- 12/ Factibilidad económica y financiera de un muelle provisional en Puerto Limon, Costa Rica (CEPAL/MEX/67/8)
- 13/ Operación portuaria de los muelles Nacional y Provisorio de Puerto Limón, Costa Rica (CEPAL/MEX/69/3)
- 14/ Observaciones sobre la operacion portuaria de Puerto Barrios, Guatemala (CEPAL/MEX/69/17)
- 15/ Coordinación de las operaciones de los puertos de Santo Tomas de Castilla y Barrios, Guatemala (CEPAL/MEX/70/7)
- 16/ Estudio de equipo móvil complementario para el puerto de Acajutla, El Salvador (without reference number); Estudio de equipo móvil complementario para el puerto de Limon, Costa Rica (without reference number)
- 17/ Convenio entre el Ferrocarril Nacional de Honduras y la Empresa
 Nacional Portuaria de Honduras para la operación de Puerto Cortés (without
 reference number): Delimitacion de áreas de accion y de servicios entre
 la Aduana y la Empresa Nacional Portuaria de Honduras en Puerto Cortés
 (without reference number)
- 18/ Posibilidades del transporte maritimo entre determinados puertos centroamericanos (without reference number)
- 19/ Orientaciones para establecer autoridades portuarias de alcance nacional en los países centroamericanos (CCE/SC.3/GTIM/II/6; TAO/LAT/94)
- 20/ Informe de la primera reunion del Grupo de Trabajo sobre Transporte Marítimo y Desarrollo Portuario (E/CN.12/CCE/SC.3/22); Informe de la segunda reunion del Grupo de Trabajo sobre Transporte Marítimo y Desarrollo Portuario (E/CN.12/CCE/SC.3/24)
- 21/ Problemas del transporte marítimo y desarrollo portuario en el Istmo Centroamericano (E/CN.12/CCE/SC.3/21;TAO/LAT/75)
- 22/ Características y programas de los principales puertos del Istmo Centroamericano (CCE/SC.3/GTTM/I/DI.2); Actividades portuarias realizadas en Centroamérica, 1967 (CCE/SC.3/GTTM/II/2; TAO/LAT/92); Situación y actividad portuaria de Centroamerica, 1964-1963 (E/CN.12/CCE/SC.3/27; TAO/LAT/99)
- 23/ Bases para la formulación de una Comisión Centroamericana de Autoridades Portuarias (CCE/SC.3/GTTM/II/3; TAO/LAT/89)

- 24/ Lineamientos para la constitucion de una Asociación Centroamericana de Usuarios del Transporte Marítimo (CCE/SC.3/GTIM/II/5; TAO/LAT/93)
- 25/ Fundamentos para constituir una Asociación Centroamericana de Armadores (CCE/SC.3/GTTM/II/4; TAO/LAT/88
- 26/ Informe sobre los problemas derivados del aumento de los fletes marítimos acordados por las conferencias navieras internacionales (SIECA/RECTM/DT.2)
- 27/ Informe de la Reunion Especial Centroamericana sobre Transporte Marítimo (SIECA/RECTM/1)
- 28/ Capacitacion del personal administrativo y obrero de los puertos del Istão Centroamericano (CEPAL/MEX/69/24)
- 29/ Anteproyecto de reglamento para la Asociación de Usuarios del Transporte Marítimo del Istmo Centroamericano (without reference number)
- 30/ Principios generales de un código de cuentas y estadísticas para terminales portuarias centroemericanas (CCE/SC.3/GTIM/II/8; TAO/LAT/91)
- 31/ Elementos básicos de un sistema uniforme y simplificado de la documentación exigida en las terminales portuerias centroamericanas (CCE/SC.3/GTTM/II/7; TAO/LAT/90)
- 32/ Provecto de Código Portuario Centroamericano (TAO/LAT/26) Provecto de Código Marítimo Uniforme Centroamericano (TAO/LAT/27).

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D. ECONOMIC DEVELOPMENT (Programme 00 and Subprogramme 04)
In the following pages, will be indicated the activities performed by
the United Nations experts assigned to the Central American Economic
Integration Programme, in the field of economic development, according
to the work plans established by the ECLA Mexico Office.

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- a) Research and Economic Development of Mexico and the Caribbean (Programme 00)
- 1. Participation in two projects is estimated. The first one in relation to the internal market and the economic development of Mexico (Project 00-3) and the second one related to economic development, integration and commercial links of the Caribbean Basin (Project 00-4).
- 2. As part of the work of the Second Development Decade of the United Nations for 1972, Project 00-3 has been designed. It has as its central purpose to examine the incidence of the income distribution and employment processes on the structure of the internal merket, as well as of this last factor on the supply evolution and the changes that occurred in the productive base. From it several outlines could emerge that would facilitate the coordination of policies in the fields of industrialization, occupation and social services.
- 3. While a joint work programme in the Natural Caribbean Basin is being developed, in which several United Nations agencies will participate, several preliminary tasks and short visits in the Caribbean countries, have been programmed for 1970 and continuing for 1971 and 1972, so that the possibilities of economic links can be determined between the Central American Common Market, CARIFTA and neighboring Latin American countries, such as Mexico, Panama, Colombia and Venezuela. Further some preliminary surveys will be undertaken on specific economic activities in the fields of transport, electricity and natural resources. It should be pointed out that in order to undertake this work, additional financial resources have to be assigned in order to allow the needed travel.

- 4. The regional experts of the Technical Cooperation Office of the United Nations, who participate in this project, under the direction of the ECLA Mexico Office, are the following:
- i) Regional Adviser on Economic Development. Mr. Jorge Puchet has been in charge of this position since August 1, 1969. The participation of this expert has been programmed in both projects assigning him for specific studies and technical assistance tasks. Three man-months bave been calculated in 1972 for the first of these studies, and one man-month per year for the second one starting in 1970.
- 11) Regional Adviser on Infrastructure. Mr. Ricardo Arosemena is occupying this post since 1 January 1969. His participation has been programmed in the Natural Caribbean Basin project in relation to concrete studies and technical assistance. One man-month per year, starting 1970, has been assigned to him.
- iii) Regional Expert on Transport Economy. Mr. Napoleón Morúa occupies this position since June 8, 1966. It is hoped that this expert will be able to incorporate himself to the technical assistance work needed in the Caribbean project for a period of two man-month fer year starting in 1971.
- iv) Regional Expert on public Utilities. Mr. Edgar Jiménez is occupying this post since January 1, 1968. His participation, for specific technical assistance tasks in the Caribbean project has been programmed for a period of one man-month per year in 1970 and 1972 as well as two man-months in 1971.
- v) Regional Expert on Electric Development. Mr. Ernesto Richa is fulfilling these functions since November 1, 1967. According to his /work programme

work programme he could be incorporated to the technical assistance work of the Caribbean project in 1972, for a period of one-man month.

vi) Regional Expert on Hydraulic Resources. Mr. Jesse Short has been contracted for this post since September 13, 1969. It has been estimated that he could advice the Caribbean project in 1971 for a period of one man-month.

- b) Economic Planning and Development in Central America (Programme 04-00)
- 5. This programme consists of nine projects, and technical assistance is given in the following five: a) Balanced development (Project 04-01);
- b) Analysis and future trends of economic development (Project 04-02);
- c) Economic development planning (Project 04-04); d) Methodological aspects of development (Project 04-06); and e) Development financing (Project 04-08).
- 6. In accordance with the resolutions of the Central American Committee for Economic Cooperation, and the Central American Economic Corril; technical assistance has been provided to the Governments in the past and will continue in the future in matters of sectoral development and project evaluation in order to facilitate the achievement of the balanced development principle among the member countries of the Central American Common Market. In this connection, the office collaborated in 1968 and the beginning of 1969 in the preparation of a report on the position of Nicaragua within the Common Market as a relatively less developed country from the economic standpoint. On the other hand, at the request of the Executive Secretariat of the Honduran Advisory Board for Economic Planning, which has the task of improving and putting into operation its annual plans of action, a work plan was drawn up towards the end of 1969 for coordinating the country's economic and social development plans and goals with monetary and fiscal policy. Part of this assistance, will include a programme of technical training which will get underway in Honduras in 1970. The Honduran Government has called a meeting for

March, 1970, for the purpose of analyzing the country's problems and economic possibilities over the next five years. The most important international financial organizations will attend this meeting, at which the development plan for 1969-74 will be analyzed.

- 7. Under the heading of analysis and future trends, and in relation to No. 6. above, a study has been prepared on the economic situation of Honduras 2/ and two preliminary reports on the progress of public financing in Honduras and Nicaragua 3/. These will serve as a basis for further research in order to evaluate fiscal matters in relation to the characteristics and problems resulting from the movement of the internal and external resources of the region (Project 04-08). In addition, ECLA, Mexico, will put these studies and reports to use both for work covering the annual economic advance of Latin American countries and for investigating the progress, problems and perspectives of the integrated development of the Central American Common Market countries. (This is Project
- 8. The project on economic development planning covers advisory activities given to countries and regional organizations. The most important of these were the following: a) At the request of the Panamanian Government ECIA collaborated in 1967 on a study of the economic and social repercussions in the future development of the country, expected to result from the construction of a new, sea-level canal. ECIA assisted particularly in the matter of general aspects and the economic development possibilities of Panama. Also in 1967 ECIA collaborated with the Executive Secretariat both of the General Treaty for Central American Economic Integration and of the Central American Monetary

04-07 in the 1970/72 Work Programme of ECLA, Mexico Office.)

Council in working out balance of payment problems of the various countries as a whole. This work was incorporated into the basic documentation presented by the organizations for consideration at the meeting of the Central American Economic Council and Central American Monetary Council. In the same year, at his request advice was also given to the Guatemalan Government in the preparation of the 1967/70 Plan of Immediate Action. Finally, the Planning Office and the Central Bank of Guatemala were advised in the drawing up of a uniform programme of national accounts and a system of statistics for matters of overseas trade and the balance of payments; b) in 1968 and at the beginning of 1969, ECLA technically advised the Central American countries on a variety of matters. ECLA experts formed part of the United Nations Mission which collected further information on the Guatemalan Government's request for technical assistance for the purpose of reinforcing the technical and executive staff of the National Planning Secretariat, and also on matters of organization and the functioning of the programming mechanisms; c) in August, 1969, ECLA assisted the Latin American Institute for Economic and Social Planning in the preparation of a draft of the methodology which may be suitably applied in formulating the monetary budget. This will comprise a chapter in the Manual on Annual Plans of Operation which is being prepared by the Institute. 5/ ECLA also participated, at the end of 1969, and at the request of the Central American Institute for Public Administration, in the Regional Course on Administrative Reform on the subject of economic planning techniques. 9. Two studies have been planned for commencement in 1972 on methodological

aspects of Central American development. One of these consists of a /short-term

short-term analysis of the economies of the Central American countries and the other the formulating of a regional model of behavior of these economies, for the following purposes: a) To investigate the types of adjustments and deviations in long-term policies arising from temporary conditions of unbalance, and to define standards of judgement for coordinating the norms of national and regional economic plans with immediate Government action in monetary and fiscal matters and balance of payments, and b) to examine the pattern of Central American economy from both the point of view of its interdependence relations and with the rest of the world. The conclusions which are drawn will be used in calculating the impact of the process of integration on the country's development, and also the likely after-effects of other different regional and national Common Market policies.

10. The problems of Central American short-term economy policy have recently been developing along specific lines due, particularly, to difficulties experienced in the balance of payments, and a study on this situation was deemed necessary at the beginning of 1969. The work originally carried out consisted of a preliminary examination of the general aspects of the problem in each of the countries concerned and in the area as a whole, and of the preparation of a more detailed and systematic plan of research. This project has been enlarged in order that the goals referred to in the United Nations' Second Development Decade may be reached. Research work commenced in 1969 on the characteristics and problems connected with the mobilization of internal and external resources, for national development purposes or for

dealing with priorities of a regional nature. An evaluation will also be made of impediments to the increasing of resources which may be productively invested; a study will be carried out on type and impact of investment distribution and the nature of unbalance financial problems, of balance of payments and of public finances. The above work will lead to the presentation of a complete set of suggestions to the various Governments so that they may resolve certain financial problems of development and integration on a joint basis.

- 11. The United Nations Regional Technical Assistance Experts who have taken part in the above work under the guidance of ECLA Mexico office are the following:
- i) Regional Adviser in Economic Development. This post was held by
 Mr. Ernesto Torrealba from 1 December, 1966 to 30 September, 1967. He
 assisted in the preparation of the report on possibilities of
 constructing a new, sea-level canal in Panama, in the commencement of a
 report on Nicaragua's participation in the Central American Common Market,
 and gave technical advice to Central American Governments and institutions.
 Mr. Felipe Tami was responsible for this post from 1 February, 1968
 to 31 March, 1969. During this period he began work on the analysis of
 monetary and fiscal policies, collaborated in the preparation of the
 final version of the report on Nicaragua's participation in the Central
 American Common Market, and gave technical advice on different occasions
 to the Governments and organizations for economic integration. Mr. Jorge
 Puchet took over on 1 August, 1969. During the first few months he
 cooperated with the Latin American Institute for Economic and Social Planning

/and with

and with the Central American Institute for Public Administration, and he also carried out preliminary studies on Nicaragua and Honduras. At the end of 1969 he was made responsible for the study of financing already alluded to and for providing technical assistance to Honduras on the coordination of development plans for 1969/74 with economic and financial policy. Mr. Puchet will also assist in projects relating to Mexico, the Caribbean and Central America, which have been planned for the immediate future.

References on Chapter D

Economic Planning and Development in Central America

- 1/ The development Nicaraguan economy and the comparative position of this country in the Central American Common Market (E/CN.12/CCE/355).
- 2/ Progress made by the Honduran economy in 1969 (without reference number).
- 3/ Public financing in Honduras (without reference number); Public financing in Nicaragua (without reference number).
- 4/ Panamenian economy and the construction of a new sea-level canal (CEPAL/MEX/66/9).
- 5/ Methodology for the formulation of a monetary budget (without reference number).

II. PERMANENT SECRETARIAT OF THE GENERAL TREATY FOR CENTRAL AMERICAN ECONOMIC INTEGRATION

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A. FISCAL COORDINATION (Project 04-03)

The following is a summary of the activities carried out by the United Nations experts on fiscal matters assigned to the Central American Program for Economic Integration in accordance with the plans o work established by ECLA and SIECA.

a) Budget Programming

Name: Alvaro Londoño Angel

Post: Expert in Budget Programming

Date of engagement: lst. January, 1969

Location: SIECA, Guatemala

Brief Description of the Budget Programme

1. Background

When the Joint Mission for Central American Programming (Misión Conjunta de Programación para Centroamérica) was founded in 1963, a working group was formed to give regional technical assistance in "Budget Programming". This group has always been composed of 2 or 3 experts, during the existence of the Mission and, later, as part of the Development Division of SIECA. The experts have been assigned or financed by various international technical assistance organizations, and the ECLA Mexico Office has continuously provided one of them.

Budget programming was introduced in the first stage as an element in medium and long-term planning, far greater in its scope than the traditional type of budgeting. To achieve this, emphais was place upon the creation of an ample source of information, including uniform budget classifications for revenue expenses to permit for administrative, economic and functional analyses, etc. A budget per programme was introduced at Central Government level and the first attempts were made to extend this to all the organisms within the public sector. It was possible to formulate consolidated accounts at regional level in Central America upon the creation of the Regional Budget as from 1966.

In the second stage, emphasis was given to the perfectioning of procedures and methods of execution, accountancy, control and budget evaluation; to the accountancy records, pre and post-auditing, and also programming processing methods for work to be carried out under the PERT and CPM and other systems. Work has begun on the introduction and perfectioning of balances and financial reports prepared by the comptrollership or accountancy tribunals for the purpose of achieving a clearer presentation of fiscal situations.

At their VI meeting, in May, 1969 in Panama, the Central American Budget Directors recognized the valuable progress made, and put forth some basic outlines for a new stage of continued efforts during the 1970's.

The programme for the next few years has been based on these outlines.

2. Work programme as from 1970

The work programme from 1970 will be concentrated on the following fields:

a) Redirection of budget programming with the following aims in mind: i) Uniform annual programming of budgets linked with the medium and long-term development plans of the public sector through the classification of all State activities under the heading "By sectors and by programmes"; ii) Revision of information contained in various budgets which would allow them to be classified as analytical documents (of a legal, functional, administrative, economic and financial nature, etc.); iii) Turn the budgets into an operative type of work plans within the process of annual planning.

- b) Continue to extend the budget by programmes to the entire public sector (decentralized agencies, State concerns and municipalities).
- c) Drawing up of consolidated budgets and accounts of the entire public sector in each country.
- d) Drawing up of the Central American consolidated budget with uniform programmes and sectors of activity, and elaboration of the methodology required.
- e) Elaboration of a study on systems of Central American budgeting, experience and progress made in the 1960'.
- f) Elaboration of budgets for programmes of the regional bodies for integration, their analysis and consolidation.
- g) Preparation of and holding the VII Meeting of Central American and Panamenian Budget Directors and the Seminary of Analysts in San Salvador.
- h) Collaboration with the SIECA Working Group in studies on regional tax coordination, for the purpose of coordinating budget aspects and changes in fiscal structure.

3. Activities carried out by the expert in 1969

At regional level

Participation in the organization and development of the Central American Seminary of Budget Analysts held in Panama from the 12th to the 17th of May, 1969, and in the VI Meeting of Central American and Panamenian Budget Directors held in Panama from the 26th to the 31st. of May, 1969.

The following documents were prepared: i) Central American Regional Budget for 1969 (including the consolidation of revenue and expenditure estimated by the Central Governments for 1969, of their income and

expenditure in 1968 and a consolidation of the revenue and expenditure budgets for the public sector in 1967); ii) Partial evaluation of the progress made by the Budget Programming system in the Central American countries; iii) Compiling of the recommendations of the Budget Directors at their I, II, IV and V meetings.

At national level

Costa Rica. Technical advice given to the National Institute of Apprenticeship (Instituto Nacional de Aprendizaje) in setting up its budget for 1970 programmes.

El Salvador. Technical advice given to the Institute for Industrial Promotion (Instituto Salvadoreño de Fomento Industrial) in collaboration with SIECA expert, Mr. Julio Vega, in working out the Institute's budget for its 1970 programmes.

Administration (Dirección Técnica de Presupuesto) and to the National Planning Council (Consejo Nacional de Planificación) in the following matters: elaboration of the Central Government budget, its execution and evaluation; publication by the Technical Budget Administration of the first edition of the "Fiscal Quarterly"; extension of the programme budget to decentralized organisms, State enterprises and municipalities by the elaboration of a methodology for their uses; and in the financing and planning of the public sector in the elaboration (in collaboration with other experts) of the tax study under the 1971-74 Development Plan.

b) Fiscal Policy

Name:

Gustavo Wiese Delgado

Post:

Regional Tax Expert, member of the SIECA Tax

Coordination Group

Date of engagement:

15th February, 1968

Location:

SIECA, Guatemala

Brief Description of the Programme of Tax Coordination

1. Background

As a result of the assessment work of the Joint Group on Tax Matters (Grupo Conjunto de Tributación) OEA/BID/ECLA, which gave impetus to a programme on Central American tax coordination, the importance of this coordination problem its implications and possible solutions, were made fully obvious. At the same time, the various bodies responsible for integration voted in favour of action being taken to progressively control conflicting situations, already existing or likely to occur, in questions relating to the tax systems of the Central American countries, and to achieve the adequate functioning and later perfectioning of the Central American Common Market.

One may refer, among other examples, to the recommendations and resolutions connected with the defining of the aims of tax coordination and methods of achieving this resulting from the following meetings: the Eight Extraordinary Meeting of the Central American Economic Council (Consejo Económico Centroamericano) in June, 1964; the First Joint Meeting of Ministers of Economy and Public Finance in April, 1965; the First Joint Meeting of the Executive Council with the directors of planning organizations and the presidents of the national institutes for promotion in mid-January, 1966;

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American Isthmus (Comité de Cooperación Económica del Istmo Centroamericano) at the end of January, 1966; the First Joint Meeting of the Economic Council, the Monetary Council and the Ministers of Public Finance in November, 1967.

The First Meeting of the Central American and Panamenian Tax Directors (Directores de Tributación de Centroamérica y Panamá), held in November, 1966, summed up the aforementioned problems in the introductory part of its fiscal report by emphasizing the following: "Tax coordination is an indispensable element in the integration process leading to the elimination of conditions responsible for artificial differences in costs and, therefore, in the prices of goods subject to free trade; and also to the elimination of differences which may provoke an inefficient allocation of investments, or disturb the movement of capital".

The rapid increase in regional trade from 1960 onwards has allowed for an appreciable reduction in imports from third countries. This, in turn, caused pressure on tariff revenues as these imports were previously subject to tariffs which are no longer applicable because of the creation of the free trade zone. The rate of economic increase in the Central American countries, however, fairly high until 1965, allowed the exchequer in each country to be balanced by means of taxes raised in other ways. This situation changed as from 1966, when the rates of economic increase began to fall. The fiscal problem became acute and the Governments began efforts to find alternative sources of income to compensate the drop in tariff figures.

When these adjustments were put into force in the form of a consumption tax

it became obvious that the fluidity and amount of free trade could well be adversely affected. It therefore became essential to intensify efforts to define, at regional level, a set of rules for establishing and maintaining the said taxes.

At the beginning of 1968 a Work Group was set up within SIECA, formed by OEA, United Nations and SIECA experts, for the purpose of formulating proposals on tariff coordination which could be presented to integration organizations. The group's activities commenced with the planning of a work programme divided into various phases. Trouble areas in which works of coordination must be carried out are considered, and priority given according to the greater or lesser influence of the areas concerned on the operation of the Common Market and the advance of the integration process (SIECA/69/VII-2/21).

The points accorded priority in the first stage of the programme included the coordination of internal consumption taxes and those concerning the establishment and operation of a regional capital market; i.e. taxes on company sales, taxes arising from the constitution of capital companies, taxes on the issuance, transference and possession of titles, etc.

Resolution 54 of the Central American Economic Council commended to SIECA the elaboration of the basic studies which would be required for the customs union, and also the carrying out of research work necessary for promoting a closer coordination of economic policy in the region. Work also commenced on the preparation of the bases for regulating internal consumption tax, with previous reference to the laws relating to the countries concerned and taking into consideration the basic rules in the matter being followed

by the integration agreement. Considerable progress was made, seeing that the preliminary draft rules will be ready in the first weeks of 1970.

2. Work Programme as from 1970

The chief projects for 1970 included in the coordination programme are as follows: a) technical advice to the various Governments in relation to the changes which must be made in their national laws on internal consumption tax in order to reconcile these with the regional rules and regulations included in the integration treaties; b) research and proposals for the coordination of tax laws relating to the setting up and functioning of a regional capital market in each of the countries concerned.

In 1971 the second phase in this work will get underway. It will include aspects of coordination of income and property tax, and of all matters which may already be, or become, an impediment to the free transit of goods and productive resources.

3. Activities of the expert

The expert first took part in discussions with other members of the Group on Tax Coordination and SIECA top executives in February, 1968, when they defined the way in which the programme would be carried out, and the contents and scope of the document which the SIECA would present as a summary of the situation at the Second Joint Meeting of Ministers of Economy and Public Finance, scheduled for 1968. At these meetings it was decided that the expert would write the chapter on tax coordination and administration.

In order to gather together information for the elaboration of this document, and to make contact with the Central American tax problem, a visit was paid to the five countries of the region, and meetings held with

important officials of the Ministries of Public Finance. Their opinion was requested on various aspects of the problem, the importance placed by each country on its solution and possible ways of tacking it. A general report was then presented by the United Nations and SIECA experts for the consideration of the SIECA authorities, indicating the stage of coordination reached after various recommendations and solutions had been put forth in the matter by the organizations for integration, and possible fields for immediate and future action to be taken.

At the end of 1968 the expert was assigned the task of preparing a report on administrative problems of the Nicaraguan Ministry of Public Finance.

In 1969 his work consisted in the main of participation in the coordination group in preparing a document entitled: "Bases for the Establishment of Rules and Regulations for Internal Consumption Tax on Production, Distribution, Sales or Consumption of Goods".

The above task led to the presentation and internal discussion of three documents which were later used as a basis for the elaboration of the preliminary draft of rules and regulations already mentioned.

In March and April the expert took part (on behalf of SIECA) in the ECLA team which drew up a report for discussion at the seminary on fiscal incentives to industry within the area of the Caribbean Free Trade Association (CARIFTA) (Asociación de Libre Comercio del Caribe) and in October he attended the said seminary.

In November and December he collaborated, as a member of the SIECA team, with the Guatemalan National Planning Committee (Comisión Nacional de Planificación de Guatemala) in the study on a better scheme for the

collection of taxes on fuel, alcohol, liquor, and customs administration.

This study and the report of the Ministry of Economy and Public Finance of Nicaragua mentioned above contain material on the Central American tax systems essential for making recommendations on the coordination process.

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B. COMMERCIAL POLICY (Project 04-12)

The following is a summary of the activities carried by the United

Nations expert on promotion of exports, assigned to the Central

American Program for Economic Integration, in accordance with the plans
of work established by ECLA and SIECA.

a) Export Promotion

The Central American Governments have pointed out, as one of the main aspects of their external commercial policy, the activities related to new exports of regional goods to be sent to third countries or groups of countries. Taking into account the degree of specialization needed to solve the problems involved and the actions to be taken, they requested the cooperation of the regional bodies and of the United Nations in the task to be initiated. In 1967 the Central American Economic Council established an institutional framework which would deal with all decisions on external commercial policy, and as a result of the tripartite meeting held by this Council. the Monetary Council and the Ministries of Public Finance of Central America, a resolution was adopted urging the Governments, to establish a regional board which would be entrusted with the formulation and execution of the regional policy on export promotion. In the same year the Central American Integration Bank and the Permanent Secretariat of the General Treaty, created, in a joint effort, a Unidad Conjunta SIECA/BCIE para la Promoción de Exportaciones (SIECA/CAIB Joint Board for the Promotion of Ordinary Meeting of the Central American Exports) and, during the XIII Subcommittee on Trade a working program in the field of external commercial policy was recommended to the member States.

The initial steps taken by the Joint Board were directed towards the elaboration of the rules and regulations on which trade promotion should be based and the ways and means of carrying out the policy devised.

- 2. An expert in trade promotion assigned to the Central American Economic Integration Programme was appointed by the United Nations Technical Assistance Programme as from October, 1966, in accordance with the above request of the Central American Governments.
- 5. The expert's activities from the end of 1966 to the end of 1968 included a close cooperation with the Joint Board in the following matters: the establishment or reinforcement of national trade commissions in each country, and the coordination of technical assistance facilities at their disposal. At the same time, the collaboration with the Joint Board involved studies to establish a regional institution for export promotion as well as a search for new lines of production of goods suitable for exporting to third countries. The expert accordingly prepared proposals for the creation of technical advisory commissions (CONTEC) in each country, projects to establish a regional institute for promotion (ICAPEX), and various studies on export possibilities for specific goods.

In 1969, taking into account the research carried out by the Joint Board with the expert's cooperation, the Board's status was modified to that of the Programa Centroamericano de Fomento de las Exportaciones (Central American Programme for Export Promotion) and its activities redirected.

The technical assistance given by the expert with this new approach was directed mainly to the formulation of proposals for carrying out activities of a regional nature in view of the fact that the national trade commissions were already established or about to initiate their activities. The task of giving direct assistance to these commissions was still, however, necessary, especially with regard to the organization and execution of programmes.

ciones Comerciales (Trade Information Department) which initiated its activities in 1970, and laid down the bases for the creation of a Centro Regional de Promoción (Regional Promotion Centre). This Centre will carry out research, give technical assistance and organize training programmes and promotion in all of the Central American countries, avoiding unnecessary duplication in a coordinated fashion. In addition to the close guidance given by the expert in achieving the above aims, he continued to cooperate in the task of finding new markets or products in order to diversify exports and in studies on the possibility of establishing joint trade offices located in selected international markets.

4. In the future, and as a result of the work being carried out on institutional and promotion aspects, the Programme will reorientate its activities in order to cover more specialized aspects. Mainly it will focus its attention on training programmes for government officials, trade information and financial problems. In the case of training programmes it is thought that a great deal of cooperation will be required in view of the fact that a programme of this sort needs to be intensive and cover a period of at least five years. In the field of financial problems it will be necessary to count on the collaboration of experts in the formulation of estimates of financial requirements to increase export production, or stimulate exports in the short run. This work must take into account preliminary proposals already formulated by regional bodies as well as other alternative possibilities that could increase exports at national and regional levels. In relation to commercial information, the requirements are to strengthen the

activities of the newly-created department. To sum-up the United Nations cooperation with this Central American Programme must be continued and enlarged in order to include the technical assistance needed to tackle the more specialized aspect to be covered in the near future.

- 5. The experts of the Technical Cooperation Office of the United Nations who participated with the Central American Economic Integration Programme assigned to this project, were:
 - a) Mr. Leon Bespaloff, from October 1966 to October 1968; and
- b) Mr. Ake K. Londen, who continued the work initiated by the former expert, over the period from January 1969 to January 1970.

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